

RAYCHEM

Supervisor Enterprise Edition

Installation Manual

Heat-Tracing Controller Configuration and Monitoring Software

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SECTION 1 – INTRODUCTION

1.1 WELCOME

The nVent RAYCHEM Supervisor heat-tracing controller configuration and monitoring software provides a graphical user interface for RAYCHEM communications and controller products. The software supports Elexant Series controller, the NGC series controllers, 780 Series/GCC-9000 Group Communications Controllers, RAYCHEM T2000 AC 2000+ alarm/communications interface cards, RAYCHEM 910/915/920 Heat Trace Controllers and/or legacy RAYCHEM Controllers (except the RAYCHEM 200N) using the Modbus[®] protocol.

The software allows the user to configure and monitor any RAYCHEM controller which has the appropriate communications interface installed from one central location. The software also incorporates advanced features such as data logging and trending, batch and recipe processing, scheduled events, etc.

Please refer to the RAYCHEM Supervisor Operations Manual (H57576) for more information on features and capabilities.

1.2 VITAL INFORMATION



Important: All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. nVent makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use.

nVent's only obligations are those in the nVent Standard Terms and Conditions of Sale for this product, and in no case will nVent or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, nVent reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.

1.3 USER RESPONSIBILITIES

The performance, reliability and safety of your heat-tracing system depend on proper design, selection and installation. The RAYCHEM Supervisor program will help you configure and monitor a system that meets your requirements, but it is only a tool. It assumes that your input is accurate, that you are familiar with heat-tracing system design and configuration, and that you will ensure that all components of the heat-tracing system are installed, maintained and used as intended. The configuration of the RAYCHEM Supervisor program should be reviewed by a knowledgeable engineer to ensure it is appropriate for your application. Additional information relating to safety, design and installation is contained in Design Guides, Installation Manuals, Data Sheets, and other literature available from nVent. Be sure to consult these documents as needed.

1.4 SAFETY WARNINGS

There are important safety warnings shipped with our products and printed in our literature. Be sure to read and follow them to reduce the risk of fire, shock or personal injury. If you have any questions, contact your local Representative or nVent directly.

1.5 TECHNICAL SUPPORT

In North America, contact directly at:

nVent Thermal Management

7433 Harwin Drive
Houston, TX 77036
Tel: 800-545-6258
Tel: 650-216-1526
Fax: 800-527-5703
Fax: 650-474-7711
email: Thermal.TechSupport@nvent.com

nVent Thermal Management at:
Europe, Middle East, Africa
nVent Thermal Management
Romeinse straat 14
3001 Leuven
Belgium / België / Belgique
Tel: +32 16 213 511
Fax: +32 16 213 603

Or for other parts of the world, contact

SECTION 2 – SYSTEM OVERVIEW

The software allows the user to configure and monitor any RAYCHEM controller installed in the field which has the appropriate communications interface installed from one central location. The software also supports alarm monitoring, with the ability to acknowledge and clear alarms.

2.1 SYSTEM REQUIREMENTS

The nVent RAYCHEM Supervisor Enterprise software is designed to run in a networked environment using one or more computers. The software is composed of three components, and it is assumed that all computers are networked together on a corporate intranet. Implementation details of this type of networking environment are beyond the scope of this document. The three components of the software are:

- nVent RAYCHEM Supervisor Master Server
- nVent RAYCHEM Supervisor Slave Server
- nVent RAYCHEM Supervisor Client

The nVent RAYCHEM Supervisor Master Server and nVent RAYCHEM Supervisor Slave Server applications must be installed and run on separate computers. nVent RAYCHEM Supervisor Slave Servers are optional; however you may add new nVent RAYCHEM Supervisor Slave Servers to your EHT system as required. Using nVent RAYCHEM Supervisor Slave Servers allows your EHT system to distribute the communications workload. For example, instead of one computer providing the monitoring for all devices in your system, one or more slave servers can be configured to monitor for alarms at the same time.

The nVent RAYCHEM Supervisor Client provides the user interface and can be installed on any computers that require user interaction with the system. Once the nVent RAYCHEM Supervisor Master Server, nVent RAYCHEM Supervisor Slave Server(s) and nVent RAYCHEM Supervisor Client(s) are installed, multiple users can access the nVent RAYCHEM Supervisor EHT system from different client computers simultaneously.

The computer hardware required to run nVent RAYCHEM Supervisor Master Server, nVent RAYCHEM Supervisor Slave Server and nVent RAYCHEM Supervisor Client are outlined in the following sections.

2.1.1 TYPICAL SYSTEM ARCHITECTURES

While many RAYCHEM Supervisor system architectures are possible, they will generally fall into one of three types, and these in turn will use either SQL Express or SQL Server for their databases. This installation manual discusses the RAYCHEM Supervisor Enterprise installation only, which uses SQL Server. For RAYCHEM Supervisor installation which uses SQL Express, refer to the Installation Manual for RAYCHEM Supervisor Standard (H57988).

- Single Master Server, no Slave Servers, Single User (Client). This type of installation will typically use the SQL Express database (“Standard”) version of RAYCHEM Supervisor.

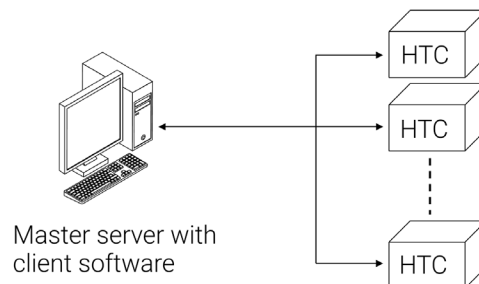


Figure 2.1.1 Typical single master, single client system

- Single Master Server, no Slave Servers, Multiple Users (Clients). This architecture may be SQL EXPRESS -based as long the number of simultaneous users is limited to a maximum of four. Due to SQL EXPRESS database limitations, no performance guarantees can be made in all situations with this many Users. For example, if several data trending or batch jobs are being run simultaneously, only one or two Users may be able to connect without impacting system performance. Applications that require more Users or the ability to have a larger number of batch/trending/configuration jobs must use the SQL-based Enterprise version of RAYCHEM Supervisor.

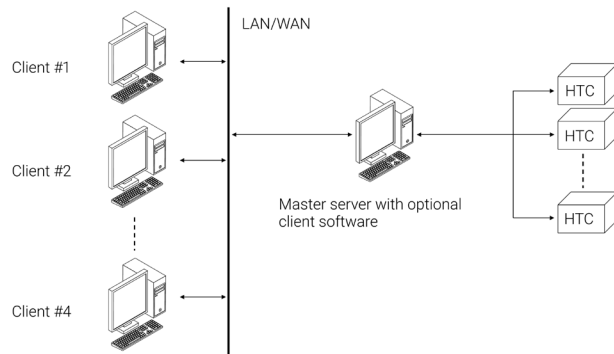


Figure 2.1.2 Typical single master, multiple client system

- Single Master Server, one or more Slave Servers, Multiple Users (Clients). This topology represents the largest system type, where multiple computers are used to distribute the communications and processing workload. This type of installation will always use the SQL-based Enterprise version of RAYCHEM Supervisor and will support a large number of simultaneous Users and data processing jobs.

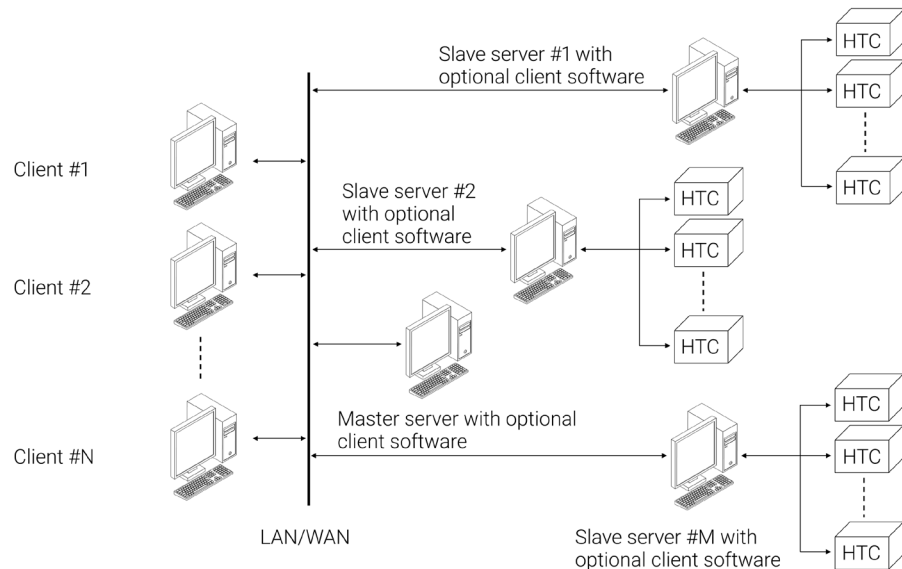


Figure 2.1.3 Typical single master, multi-slave server, multiple client system

2.1.2 RAYCHEM SUPERVISOR MASTER SERVER

To effectively use the software, the following configuration is required:

- A Quad core® – 2.0 GHz or faster (Recommended), Pentium®4 – 1 GHz (Minimum) computer. Large systems using multiple Slave Servers should consider the use of a higher speed/multiple processor Master Server computer for best performance. Consult nVent Applications Engineering for guidance
- A hard disk with at least 4 gigabytes of free space (Recommended), 2 gigabytes (Minimum)
- 8 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Standard configurations using Microsoft SQL Express: Windows® XP Pro SP3, Windows Vista, Windows 7, Windows 8 or Windows 10, either 32 or 64 bit
- Multi-User/Server Capable configurations using MS SQL Server: Microsoft Windows® Server 2000 through 2017
- Microsoft .NET® Framework version 4.0
- Network connectivity

2.1.3 RAYCHEM SUPERVISOR SLAVE SERVER

The following configuration applies to optional Slave Server computer(s):

- A Quad core® – 2.0 GHz or faster (Recommended), Pentium®4 – 1 GHz (Minimum) computer. Large systems using multiple Slave Servers should consider the use of a higher speed/multiple processor Master Server computer for best performance. Consult nVent Applications Engineering for guidance
- A hard disk with at least 4 gigabytes of free space (Recommended), 2 gigabytes (Minimum)
- 8 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Standard configurations using SQL EXPRESS : Windows XP SP3, Windows Vista SP1, Windows Server 2003 SP2, Windows Server 2008, Windows 7, 8 or 10
- Multi-User/Server Capable configurations using SQL Server: Windows Server 2003, 2008, 2012, 2014, 2016, or 2017, Windows Vista SP1, Windows 7, Windows 8, or Windows 10 on computer where the SQL Server is installed
- Microsoft .NET® Framework version 4.0
- Network connectivity

2.1.4 RAYCHEM SUPERVISOR CLIENT

The following configuration applies to Client computer(s):

- A Quad core® – 1GHz or faster (Recommended), Pentium®4 – 1 GHz (Minimum) IBM compatible personal computer
- A hard disk with at least 1 gigabyte of free space (Recommended), 500 megabytes (Minimum)
- 2 gigabytes of RAM (Recommended), 1 gigabyte of RAM (Minimum)
- One or more available serial ports
- A mouse or other compatible pointing device
- SVGA display with 800x600 resolution
- Windows XP SP3, Windows Server 2003, 2008, 2012, 2014, 2016, or 2017, Windows Vista SP1, Windows 7, Windows 8 or Windows 10
- Microsoft .NET Framework version 4.0
- Network connectivity

SECTION 3 – INSTALLING RAYCHEM SUPERVISOR

RAYCHEM Supervisor's installation wizard will install the RAYCHEM Supervisor software on your PC's hard disk drive. You must already have Windows XP, Windows Server 2003, 2008, 2012, 2014, or 2016, Windows Vista SP1, Windows 7, Windows 8 or Windows 10 installed on your computer. If you are using an SQL database version [RAYCHEM Supervisor Enterprise Edition], the computer on which the SQL Server is installed must have Windows Server 2003, 2008, 2012, 2014, or 2016, Windows Vista SP1, Windows 7, Windows 8 or Windows 10 pre-installed.



Note: To install Windows, follow the installation procedure provided by Microsoft. Familiarity with the Windows environment is highly recommended, and it is assumed throughout this manual. Knowledge of the Windows environment will make this program easier to use and understand.

If you are upgrading an existing RAYCHEM Supervisor installation which is version 1.30 or earlier, please refer to Section 15.3 "Converting RAYCHEM Supervisor Databases" in the RAYCHEM Supervisor Operations Manual (H57576) for information on how to convert your existing database.



Note: Components should be installed in the order in which they are presented in this document.

3.1 QUICK START GUIDE

The following provides a brief outline of the installation process for the Enterprise (SQL) version of RAYCHEM Supervisor. Detailed instructions may be found in each of the Sections that are referenced within the individual steps:

3.1.1 ENTERPRISE (SQL SERVER) RAYCHEM Supervisor INSTALLATIONS:

1. Setup the Master Computer:
 - A. Install the SQL Server (see Section 3.2, 3.4, 3.6, or 3.8).
 - B. Install the RAYCHEM Supervisor Master Server application (see Section 3.8).
 - C. (Optional but Recommended) Install the RAYCHEM Supervisor Client software if you want the user to be able to interact with the RAYCHEM system from the Master computer (see Section 3.8.8).
2. Setup any Slave Server Computers:
 - A. Install the RAYCHEM Supervisor Slave Server application (see Section 3.8.6).
 - B. (Optional) Install the RAYCHEM Supervisor Client software if you want the user to be able to interact with the RAYCHEM system from the Slave computer (see Section 3.8.8).
3. Setup any Client Computers:
 - A. Install the RAYCHEM Supervisor Client software (see Section 3.8.8).
4. Convert an existing database (optional):
 - A. If you are upgrading from a previous version of RAYCHEM Supervisor, PyroMaster, or TraceMaster software, you may import some of the system setup information into the new software (see Sections 15.3 through 15.4 of the RAYCHEM Supervisor Operations Manual (H57576) as appropriate).
5. Activate and Register your new software (see Section 4).

3.2 INSTALLING MICROSOFT SQL SERVER 2000

To install Microsoft SQL Server 2000, insert the "RAYCHEM Supervisor Disk 2 – Microsoft SQL Server 2000 Standard Edition" CD in your computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun.exe.



Note: This section applies to RAYCHEM Supervisor Enterprise, version 2.1 and earlier. If you are installing version 2.2 or newer, you should refer to Section 3.6 of this guide.



Note: If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.2.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the install screen is displayed, click on "SQL Server 2000 Components" and then select Install Database Server.

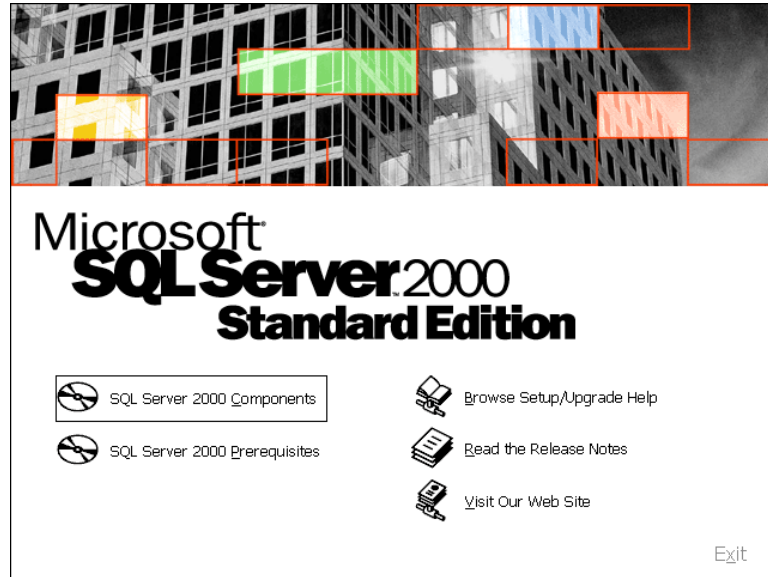


Figure 3.2.1 Install SQL Server 2000 components

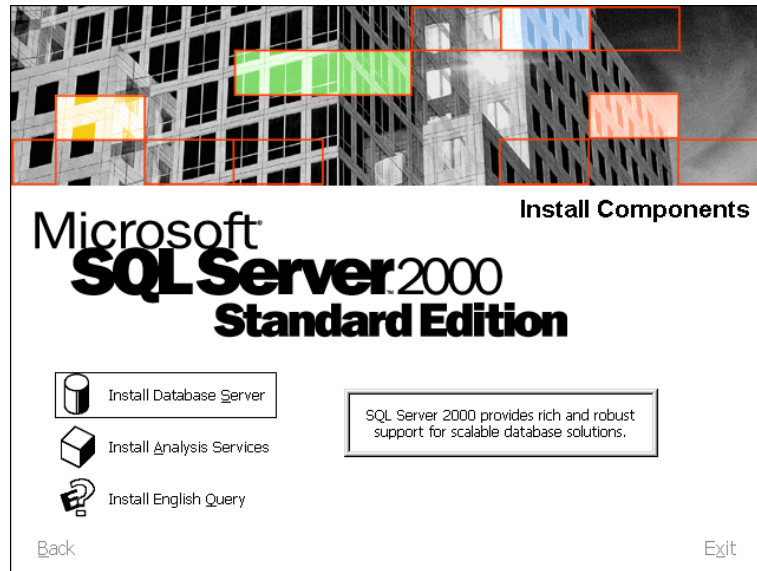


Figure 3.2.2 Install database server

Follow the on screen instructions. When the “Computer Name” screen appears, select Local Computer and then click “Next”.

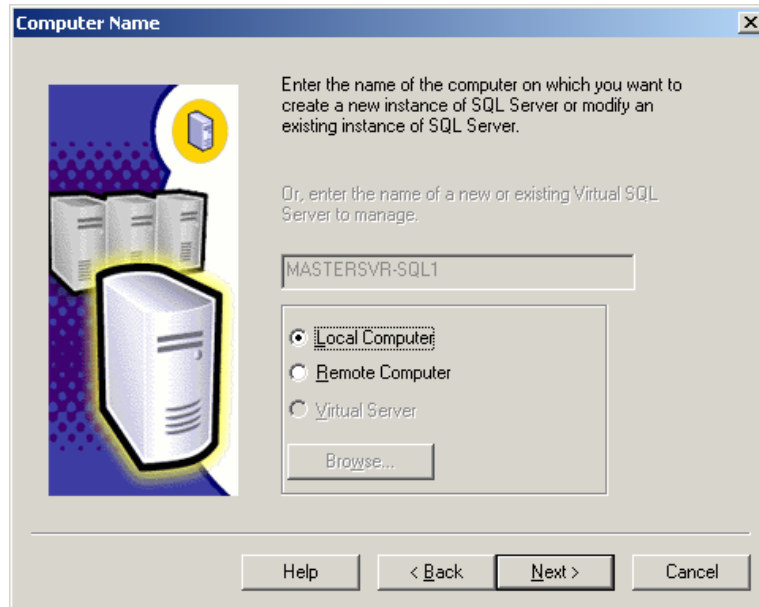


Figure 3.2.3 Computer name

Choose Create a new instance of SQL Server, or install Client Tools in the “Installation Selection” window. Click on “Next.”

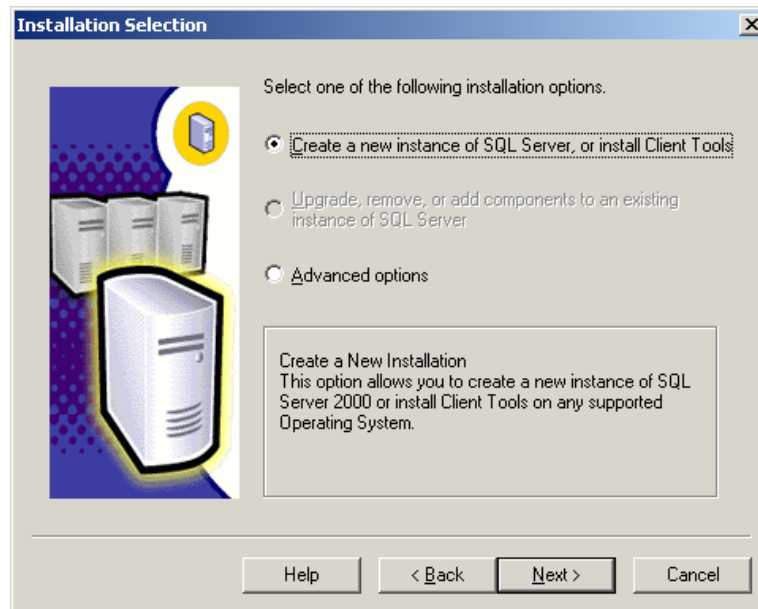


Figure 3.2.4 Create a new instance

Continue following the on screen directions. When the "Installation Definition" screen appears, select Server and Client Tools and then click on "Next."

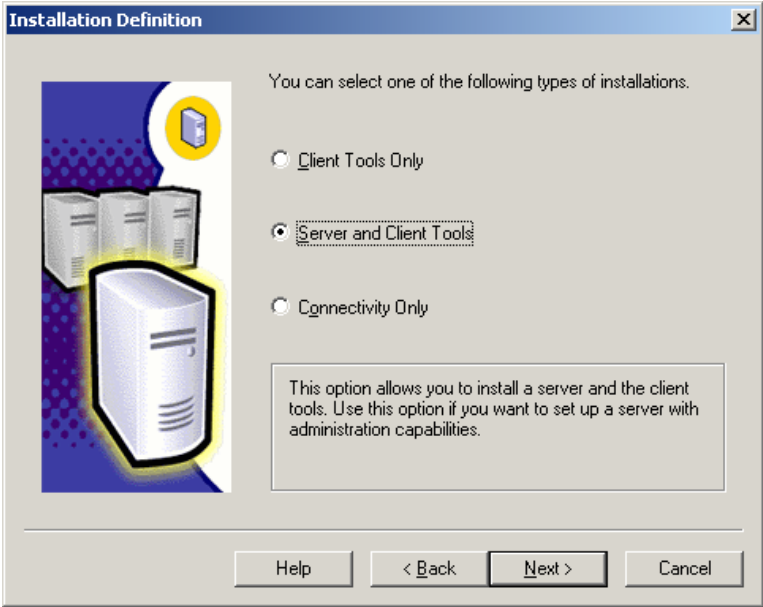


Figure 3.2.5 Install client and server tools

In the Instance Name screen, leave the installation type selection set to Default. Click on "Next."

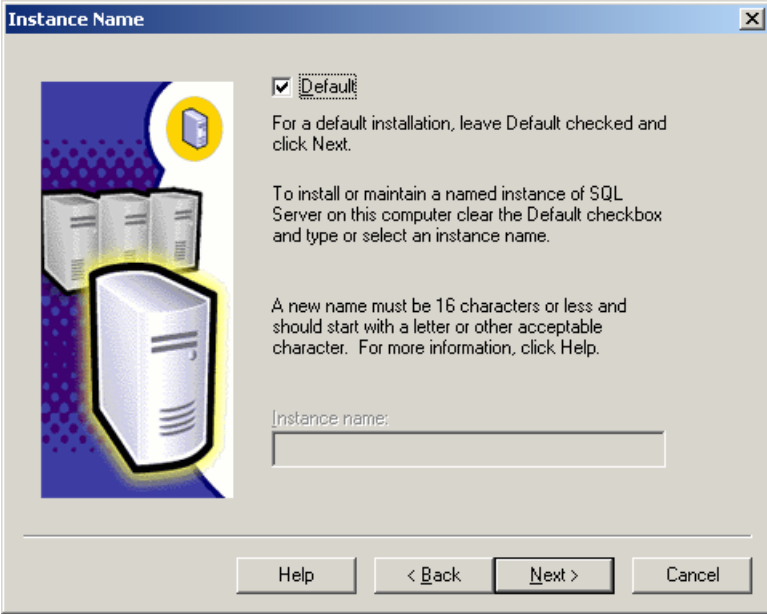


Figure 3.2.6 Default installation

Choose the Typical setup and then click "Next."

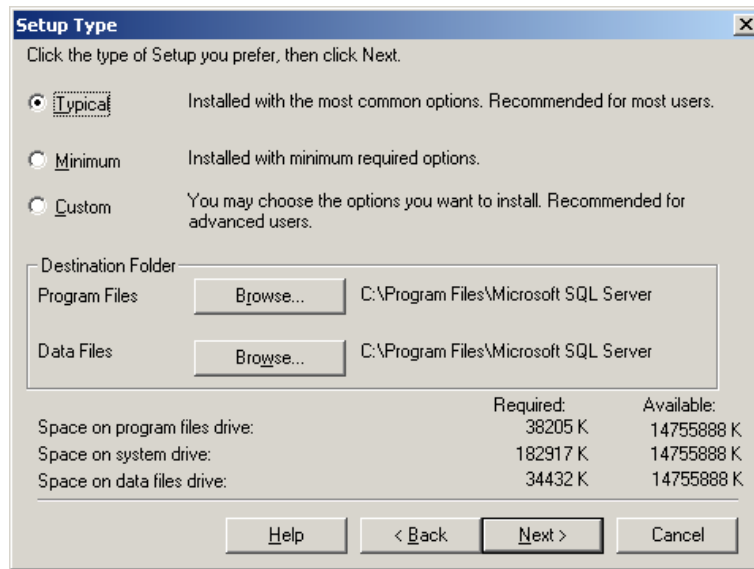


Figure 3.2.7 Typical Setup

Next, choose Use the same account for each service, Auto start SQL Server Service and ensure the Service Settings are set to Use the Local System account. Then click on "Next."

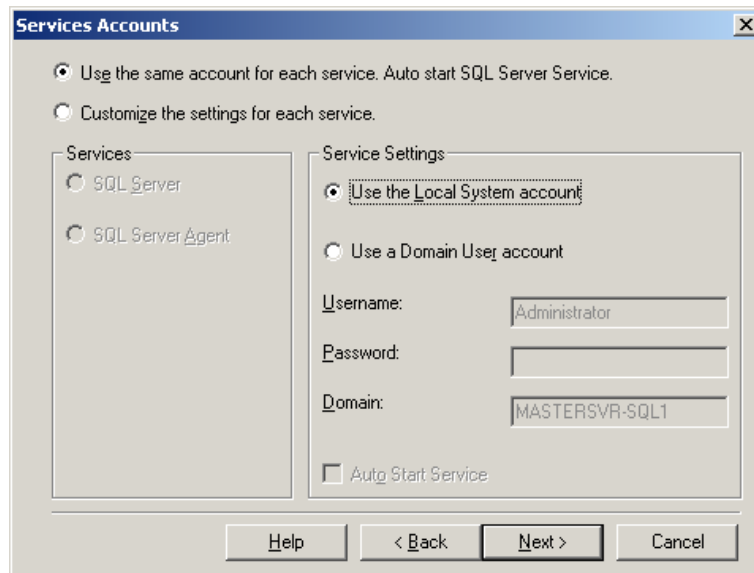


Figure 3.2.8 Services accounts

In the Authentication Mode window, choose Windows Authentication Mode, and then click on "Next."

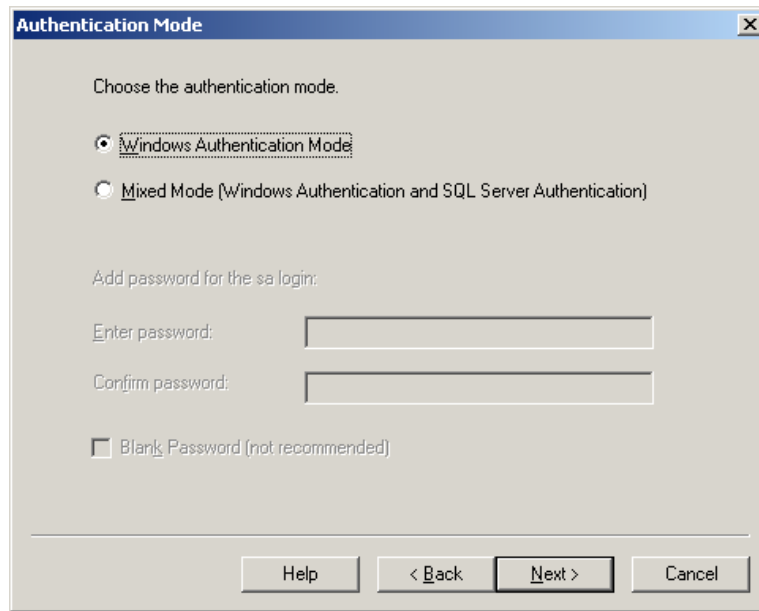



Figure 3.2.9 Authentication mode

Continue following the on screen directions. When prompted to choose the Licensing Mode, select the Per Seat mode and enter the total number of devices for which you have purchased an SQL license.

 **Note:** When purchased from nVent, copies of RAYCHEM Supervisor Enterprise include a SQL Server license and the appropriate number of SQL device (CALs) with the Supervisor software application. Simply add up the total number of Servers (Master+Slaves) and Users and enter this total into the devices box. For example, if you have purchased a package of RAYCHEM Supervisor software that includes (1) Master Server, (2) Slave Servers, and (5) Users, you would enter a total of 8 devices in the box.

Once you have done this, click on "Next."

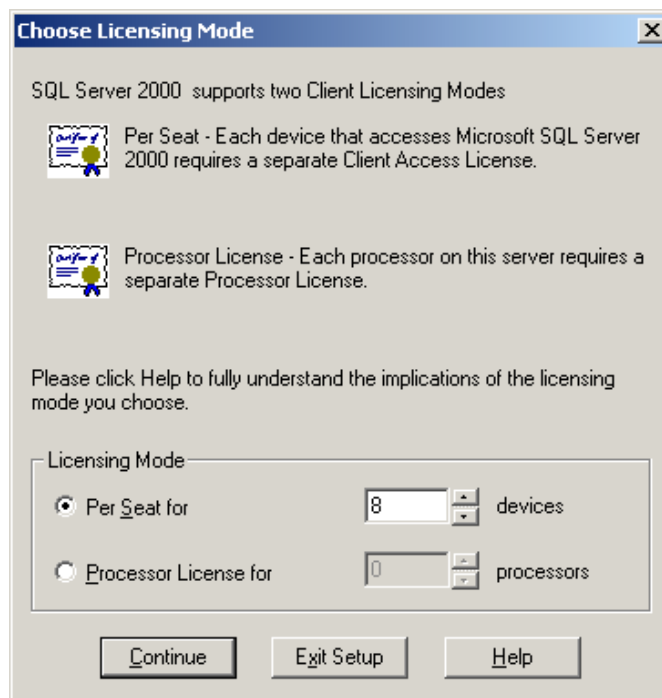


Figure 3.2.10 Licensing modes

Follow the on screen instructions until the installation is complete.

If your RAYCHEM Supervisor software package includes an additional CD labeled "RAYCHEM Supervisor Disk 3 – Microsoft SQL Server 2000 Service Pack 3a," insert this disk into the computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Setup.bat.

The Welcome screen will be displayed. Click on "Next" to continue.

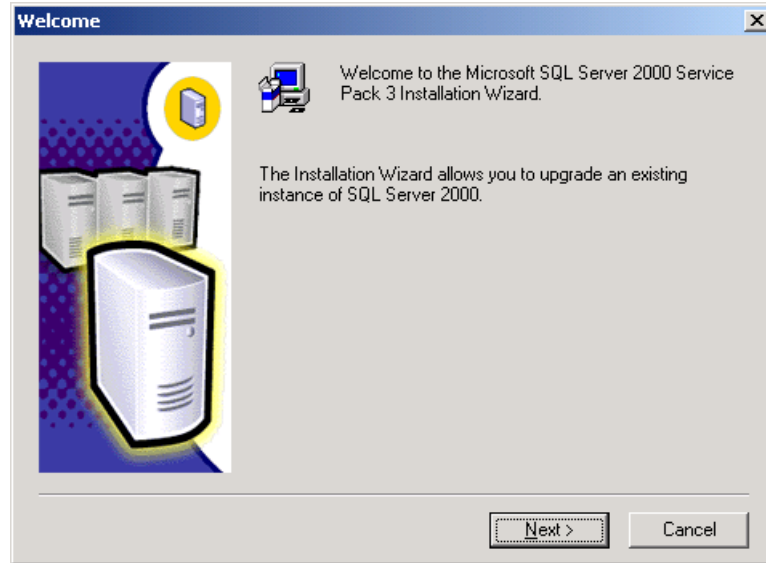


Figure 3.2.11 Install SQL Server SP3

The program may display a license agreement. If you accept the terms of the agreement, press the Yes button and the installation will proceed. If you press the No button, the installation will terminate.

If you installed SQL Server by following the instructions earlier in this Section (see Figure 2-3-1-6), check the Default check box to select the instance name. If you have more than one instance of SQL Server installed on the computer, specify which instance to update by entering the instance name into the space provided. Click on "Next" to continue.

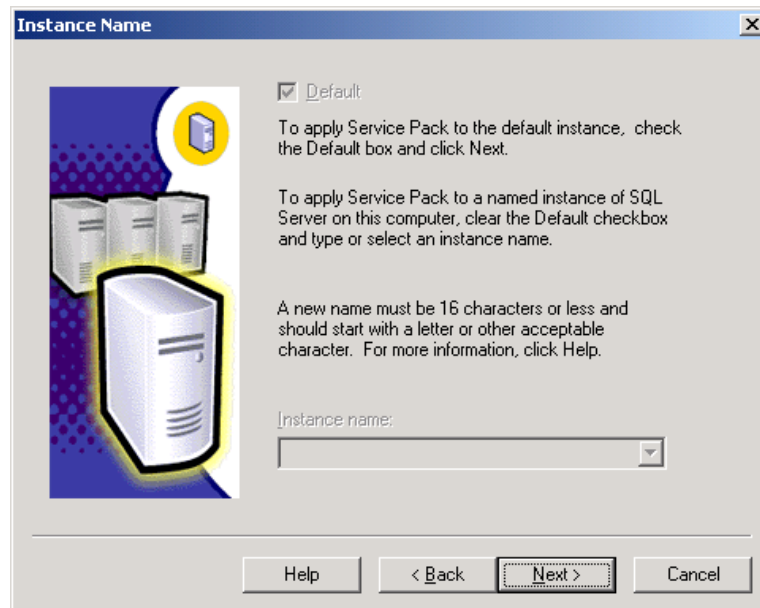


Figure 3.2.12 Select the instance name to update

Next, select how to connect to the SQL Server. Choose Windows Authentication and click on "Next."

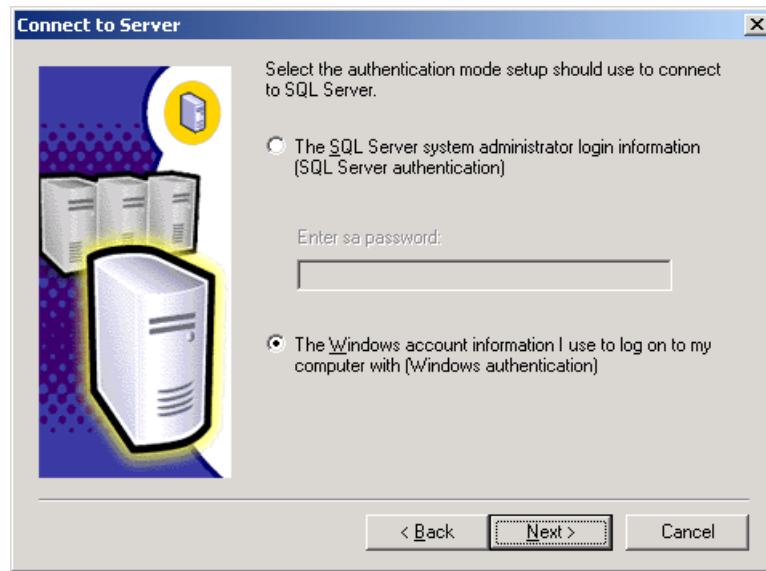


Figure 3.2.13 Connect using Windows authentication

The installation program will attempt to authenticate the password. This may take a few minutes to complete. A Password Warning window may be displayed. Choose Ignore the security threat warning, leave password blank and click on "OK."

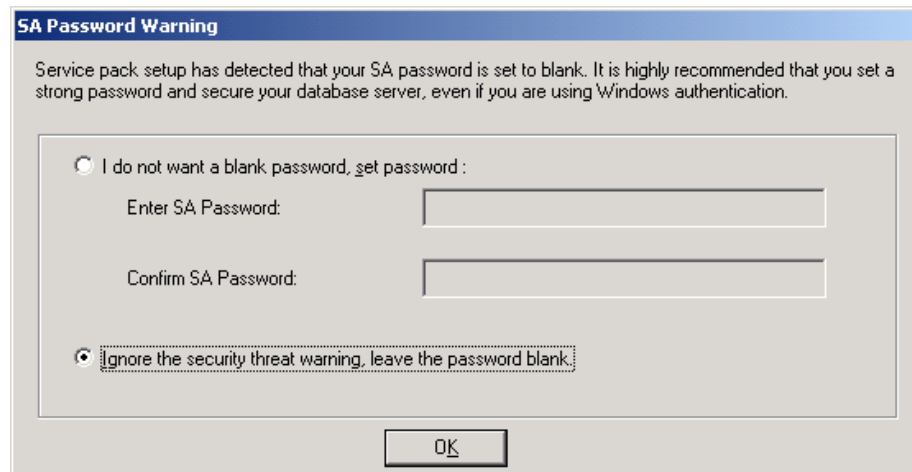


Figure 3.2.14 Leave SA password blank

When the SQL Server SP3 Setup window is displayed, check the Upgrade Microsoft Search and apply SQL Server 2000 SP3 box and click on "Continue."

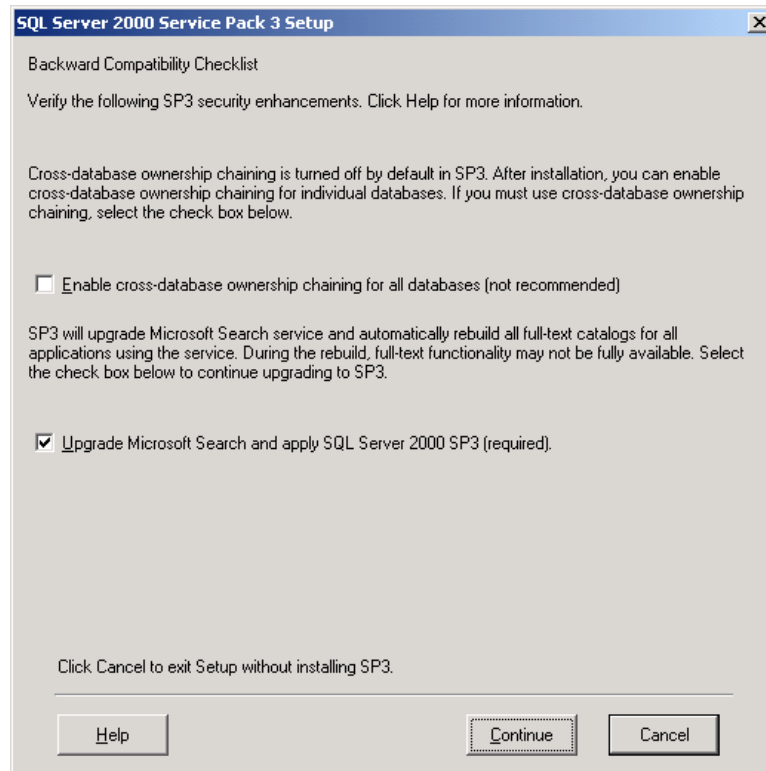


Figure 3.2.15 Apply SQL Server 2000 SP3

When the Error Reporting screen is displayed, ensure that the check box is not selected and then click on "OK."

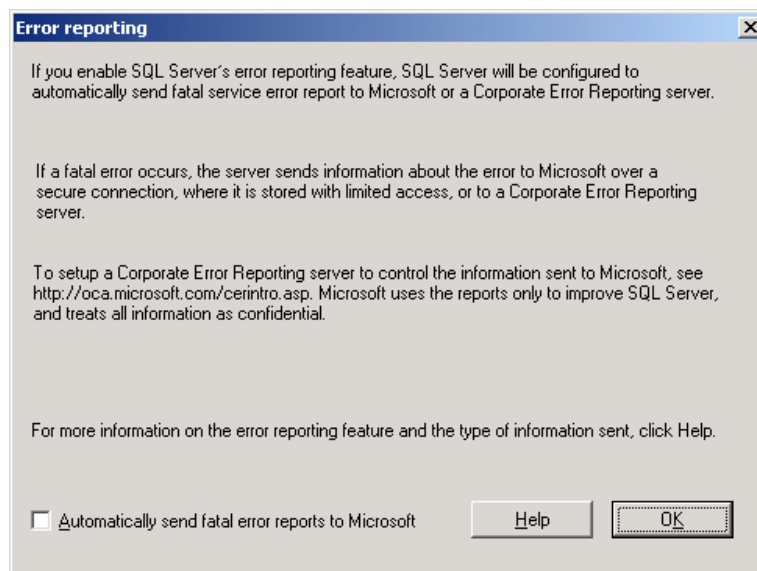


Figure 3.2.16 Error reporting

This will complete the setup required to allow the Service Pack to be installed. Click on "Next" to begin the installation process.

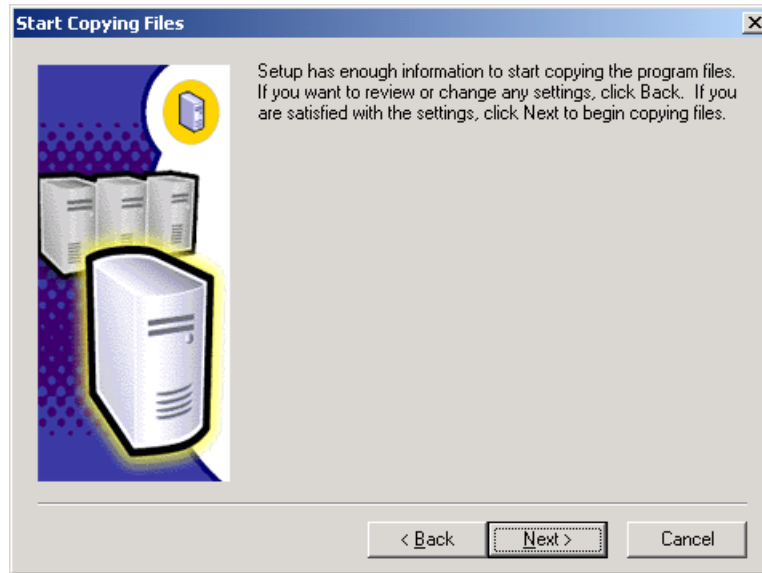


Figure 3.2.17 Start the installation

The setup software may ask you to perform a backup of your database. This is not required for new installations and may be ignored. Click on "OK" to continue.

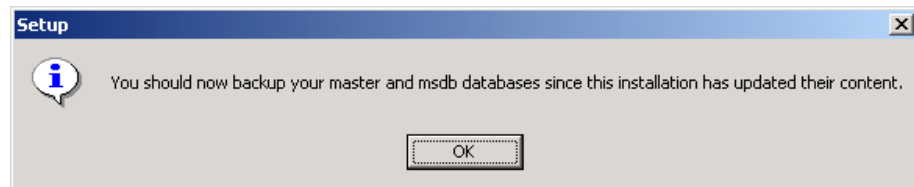


Figure 3.2.18 Backup notification

Once the installation process is finished, you may be prompted to reboot the computer to complete the process. Remove the CD from the drive and click on Finish to complete the setup process.



Figure 3.2.19 Reboot the computer

3.2.2 STARTING THE SQL SERVER

In order for the RAYCHEM Supervisor software to install and run, you must start the SQL Server database service. This can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the MSSQLSERVER entry and click on “start.”

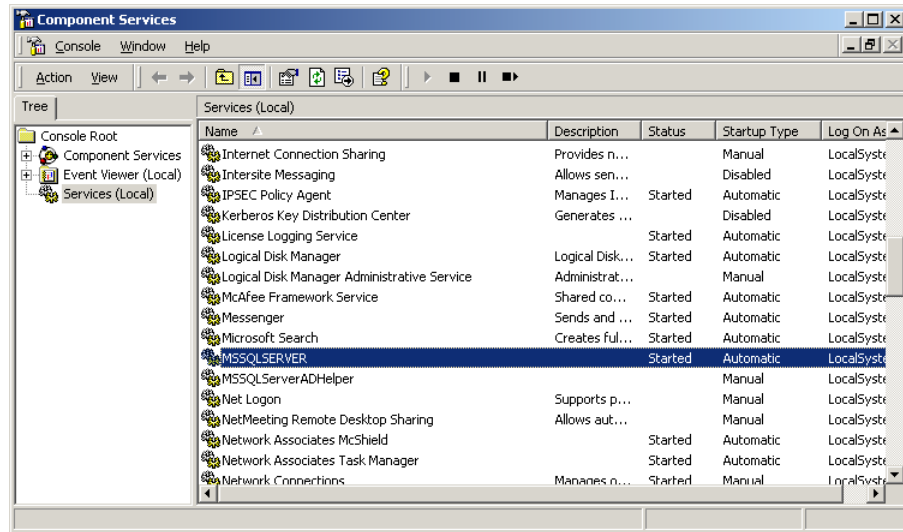


Figure 3.2.20 Manually starting the SQL server service

3.2.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.

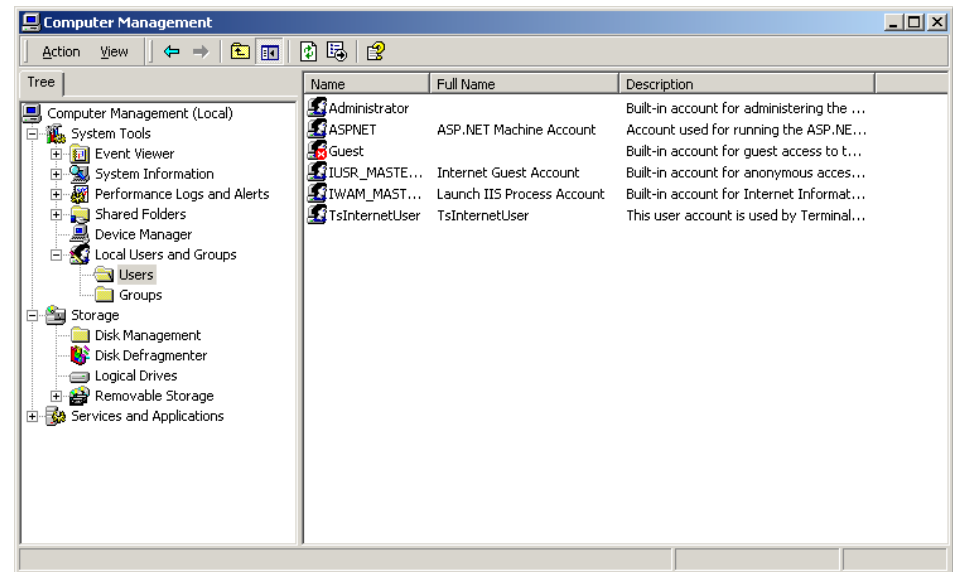


Figure 3.2.21 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

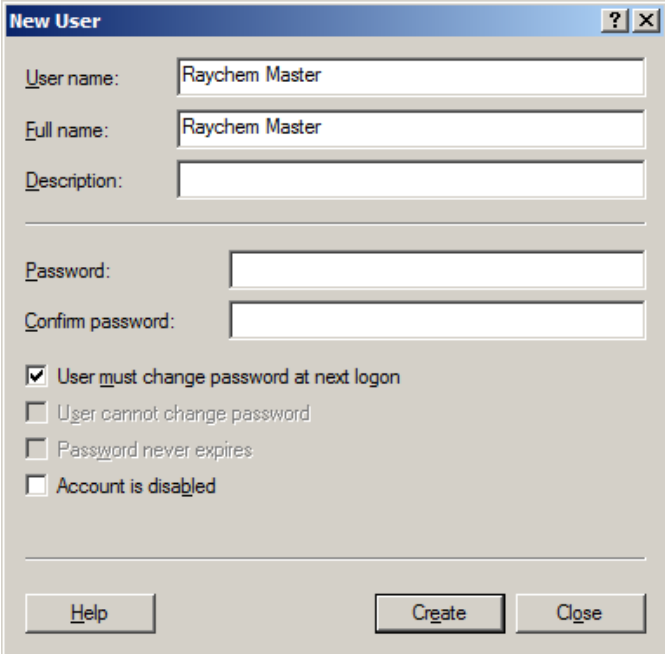


Figure 3.2.22 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

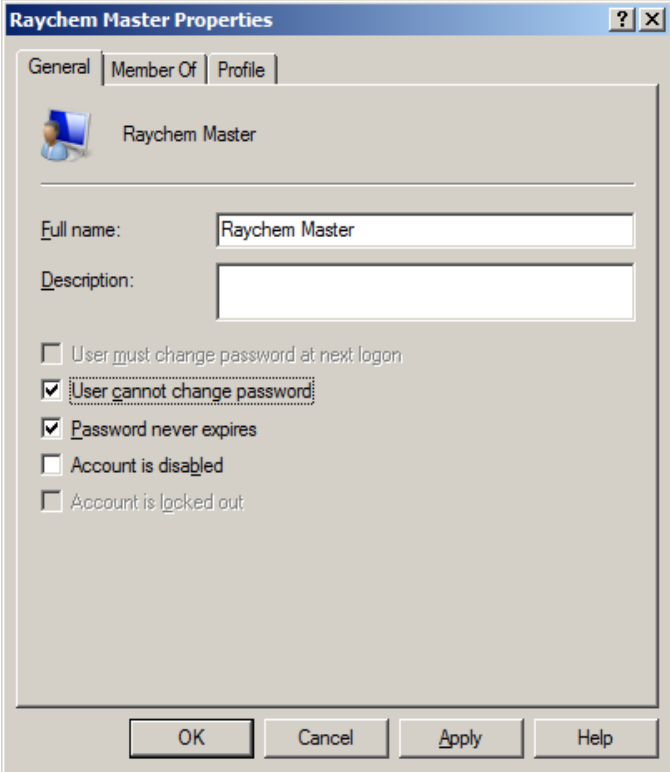


Figure 3.2.23 New user properties

Next, choose the Member Of tab and click on the Add button.

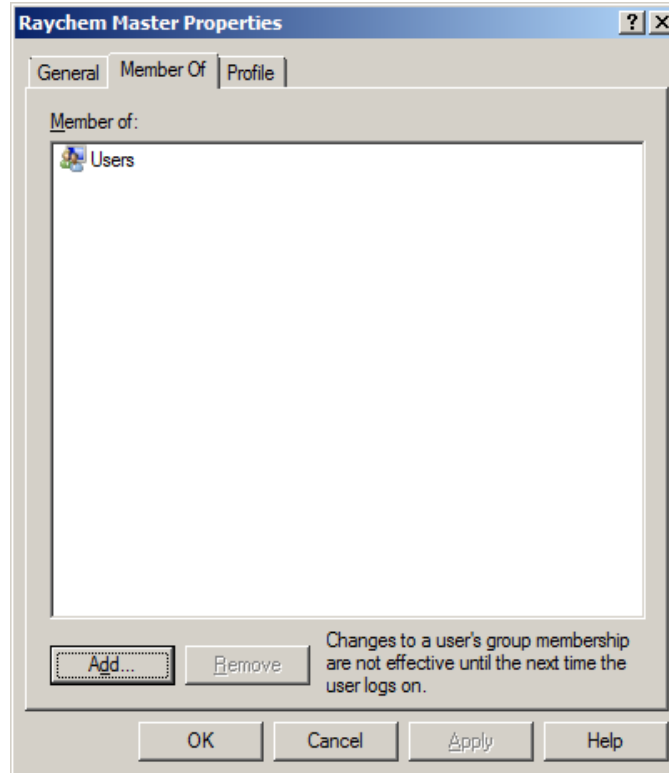


Figure 3.2.24 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

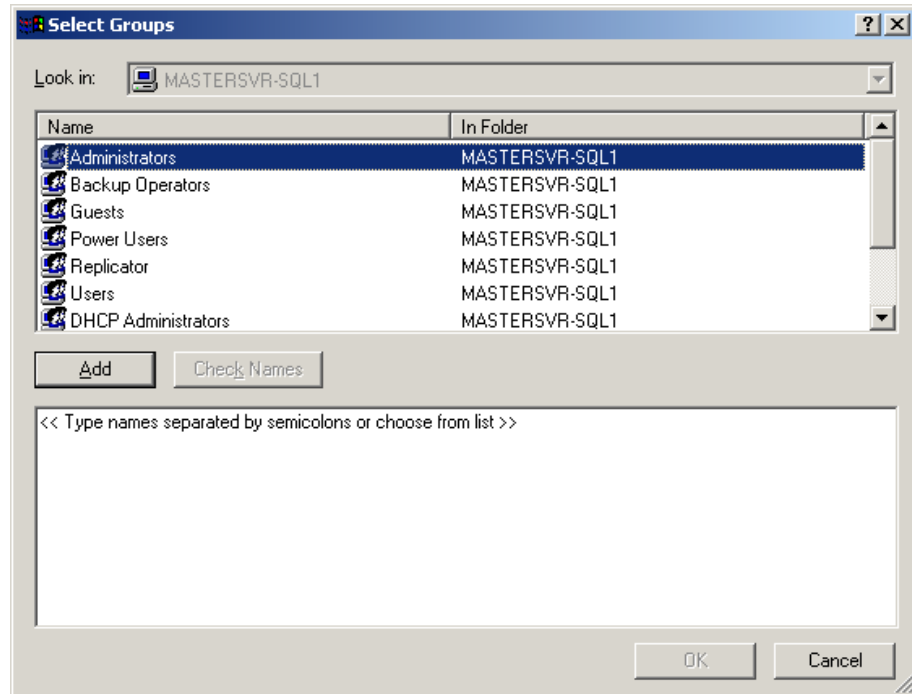


Figure 3.2.25 Set the new user as an administrator

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

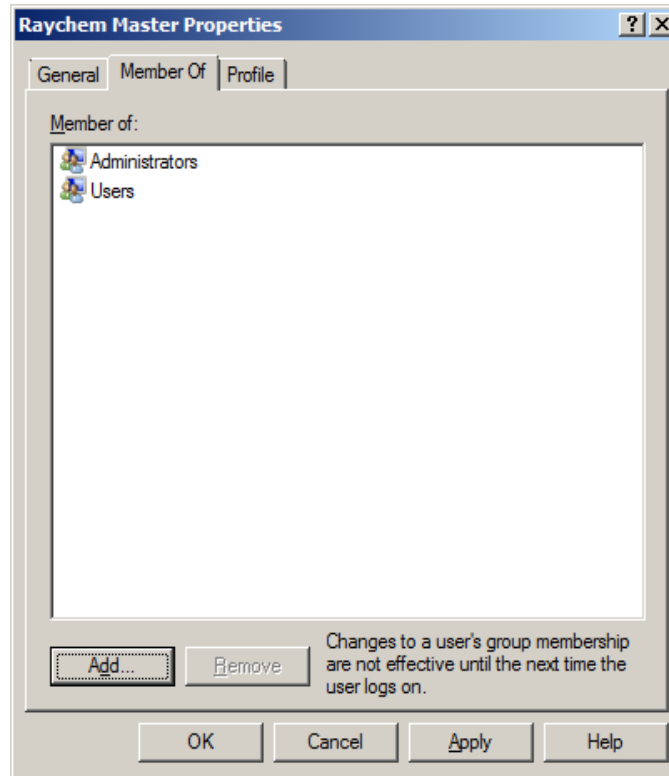


Figure 3.2.26 User Membership List

Click on "Apply" and then "OK." The new user name should be added to the list.

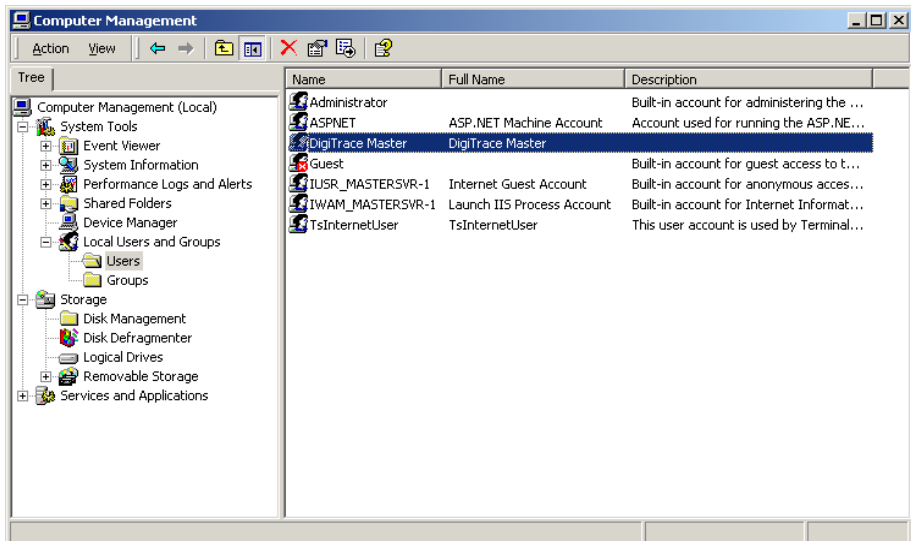


Figure 3.2.27 Addition of the new user

3.2.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2000 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www.microsoft.com/resources/sam/lic_cal.mspx.

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.3 UNINSTALLING MICROSOFT SQL SERVER 2000

You may remove Microsoft SQL Server 2000 from your computer system by following these steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select Microsoft SQL Server. Click on the Remove button.
4. Follow the instructions that appear on the screen.

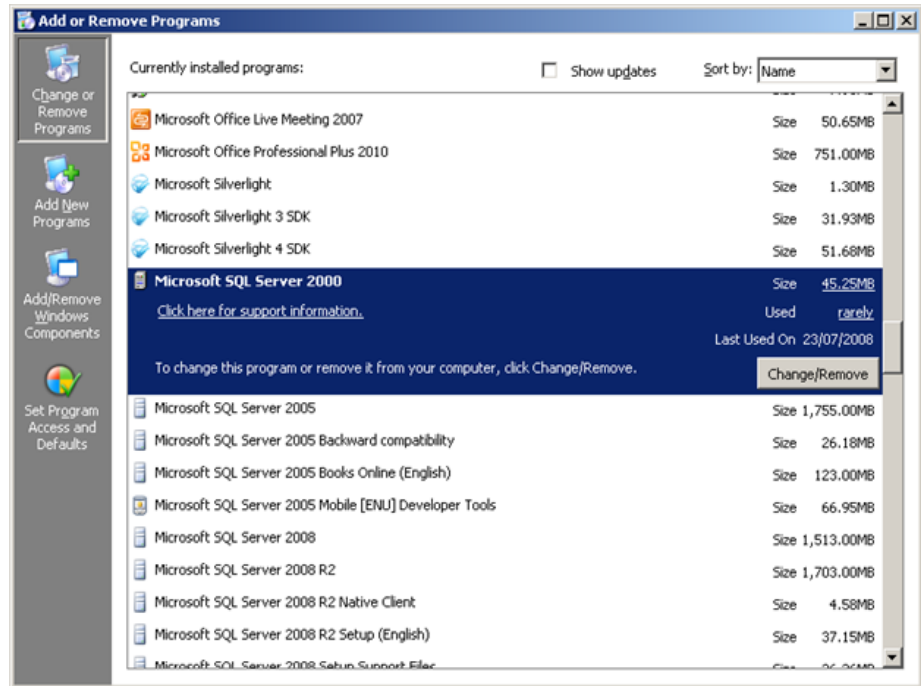




Figure 3.3.1 Remove Microsoft SQL Server

3.4 INSTALLING MICROSOFT SQL SERVER 2005

To install Microsoft SQL Server 2005, insert the “Microsoft SQL Server 2005 Standard Edition – Disc 1” CD in your computer’s CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun.exe.

 **Note:** This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.

 **Note:** If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.4.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the install screen appears, click on “Install Server components, tools, Books Online, and samples”. The Microsoft SQL Server 2005 End User License Agreement will appear. You must accept the licensing terms and conditions before you can move on with rest of the installation.



Figure 3.4.1 Install SQL Server 2005 Startup menu

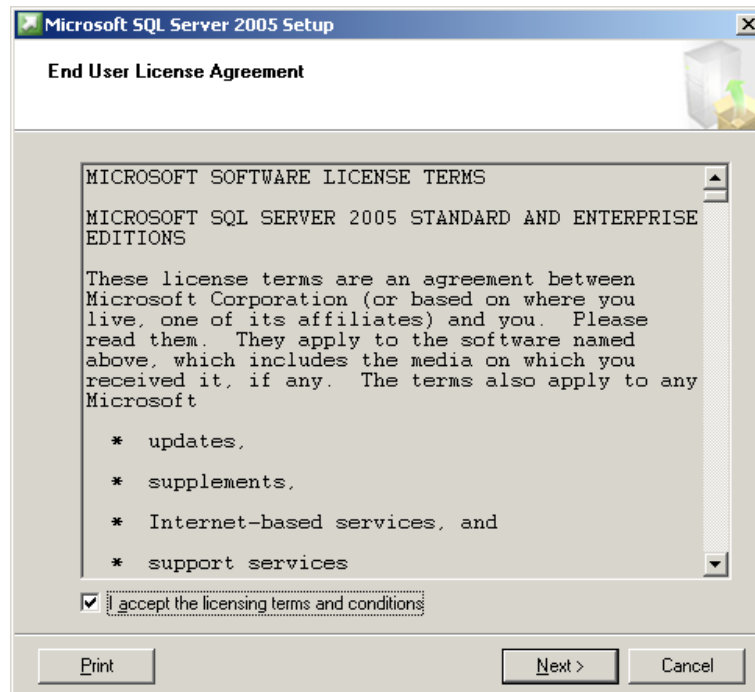


Figure 3.4.2 Microsoft SQL Server 2005 End User License Agreement

Once the "Installing Prerequisites" screen appears, click on "Install" to start the Installation.

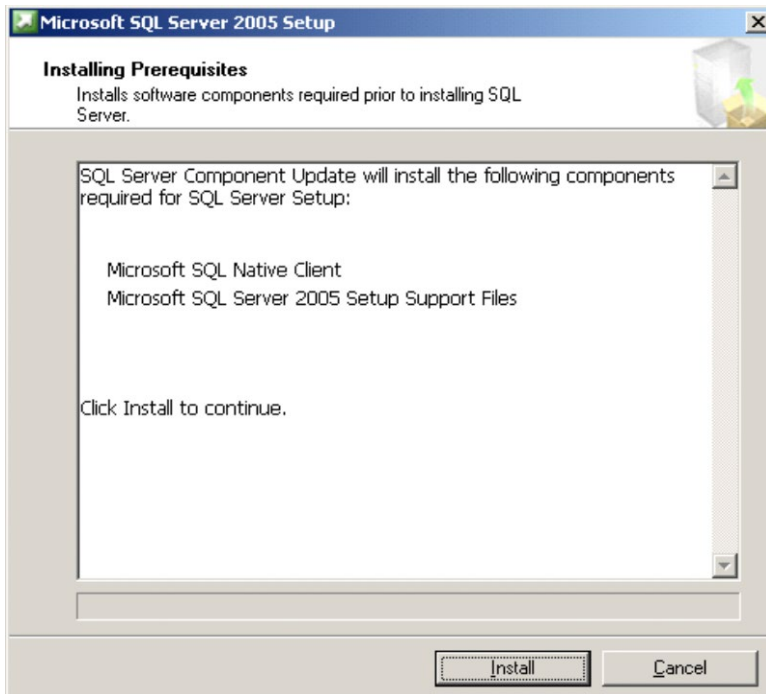


Figure 3.4.3 Microsoft SQL Server 2005 Installing Prerequisites

For the next couple of screens, follow the on screen instructions. When the “Components to Install” screen appears, select the SQL Server database Services and Workstation components, Books Online and development tools, then click on “Next”.

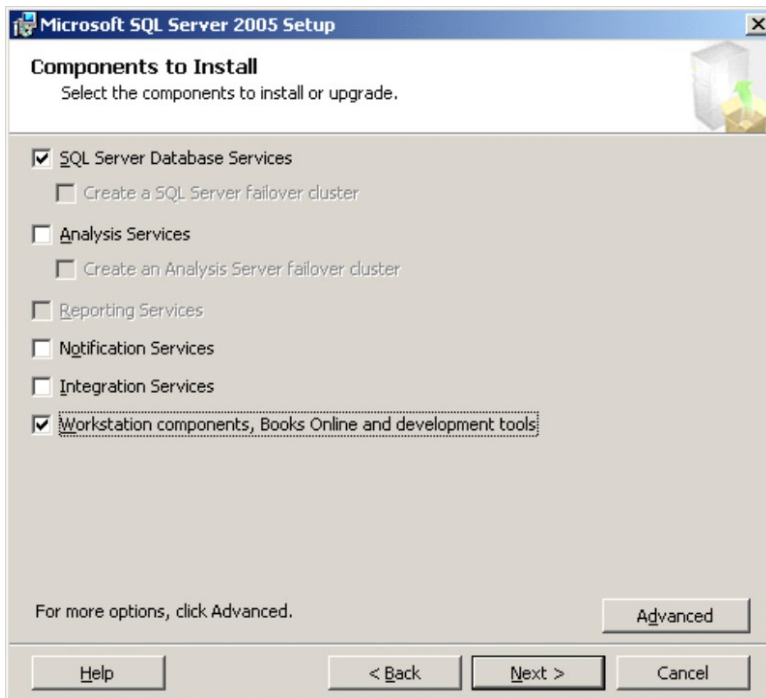


Figure 3.4.4 Components to Install

When the “Instance Name” screen appears, select Default Instance then click on “Next”.

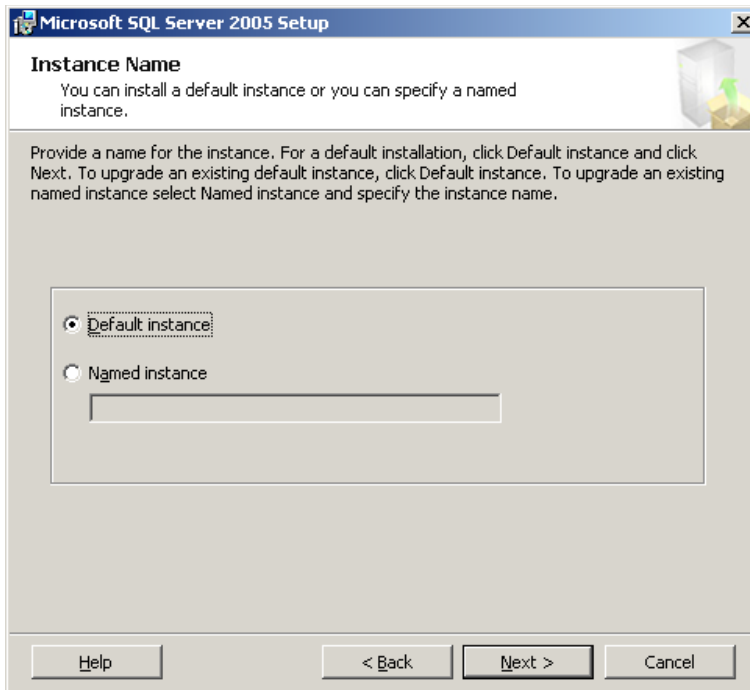


Figure 3.4.5 Instance name

Choose Local System for the “Use the built-in System account”, and for “Start services at the end of setup” select SQL Server. Click on “Next.”

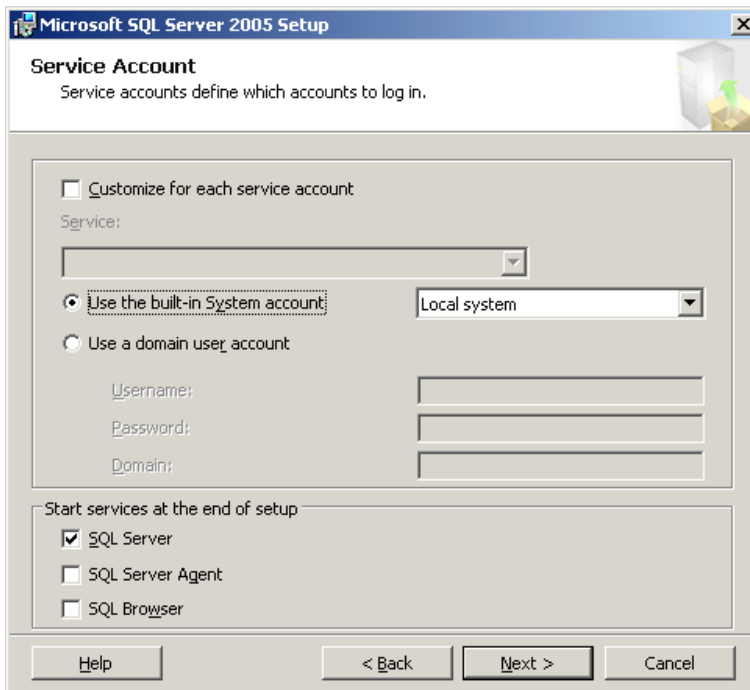


Figure 3.4.6 Service Account

When the “Authentication Mode” screen appears select Windows Authentication Mode then click on “Next”.

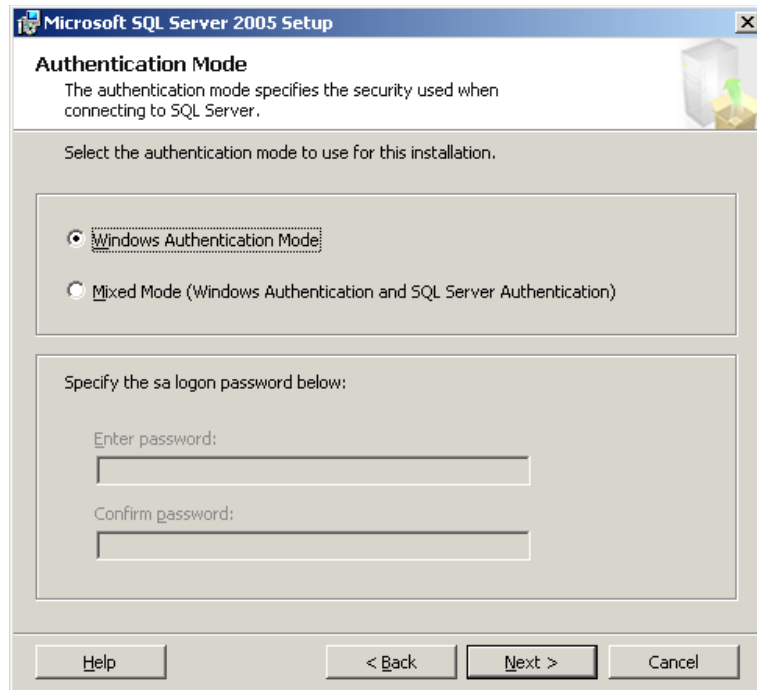


Figure 3.4.7 Authentication Mode

In the “Collation Settings” screen, select SQL collations (used for compatibility with previous versions of SQL Server) option. Click on “Next.”

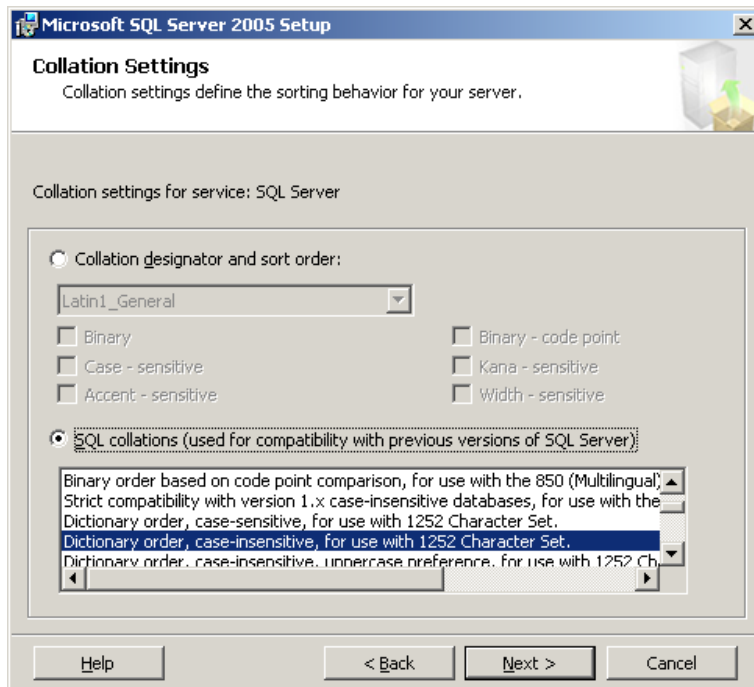


Figure 3.4.8 Collation Settings

Choose the Error and Usage report settings if required then click on “Next.”

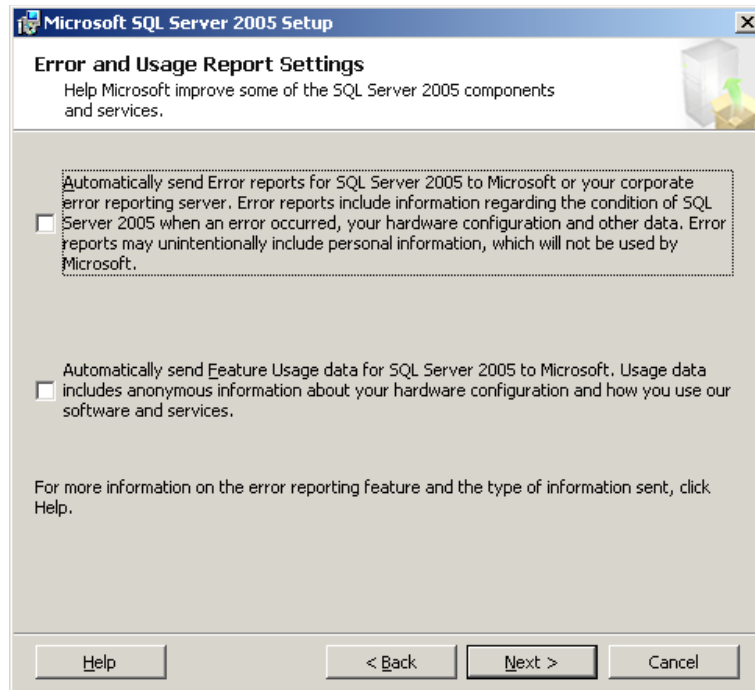


Figure 3.4.9 Error and Usage Report Settings

Finally the "Ready to Install" screen should appear, click on "Install" to start the installation.

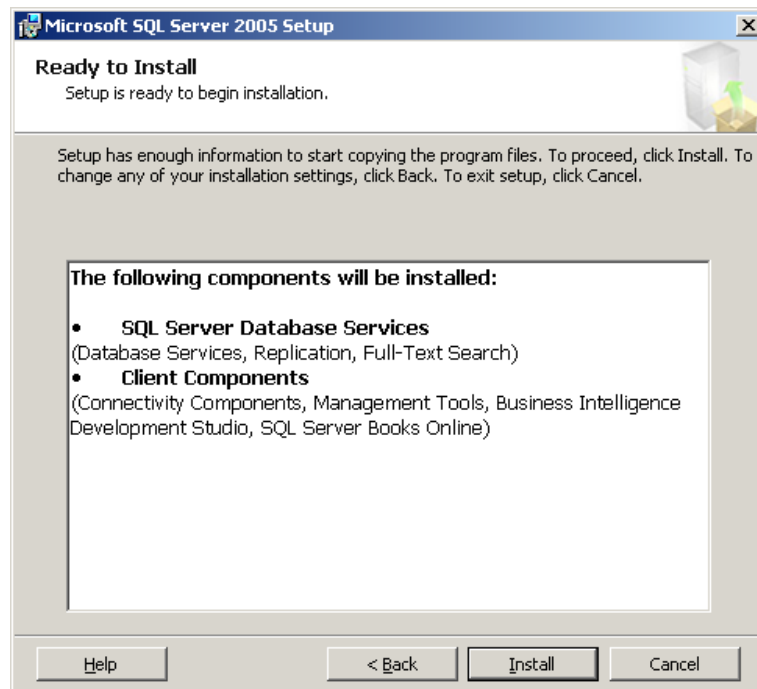


Figure 3.4.10 Ready to Install

Once the installation has started the "Setup Progress" screen appears. The installation will take some time to complete and you will be prompted to insert Disc 2 during the installation process.

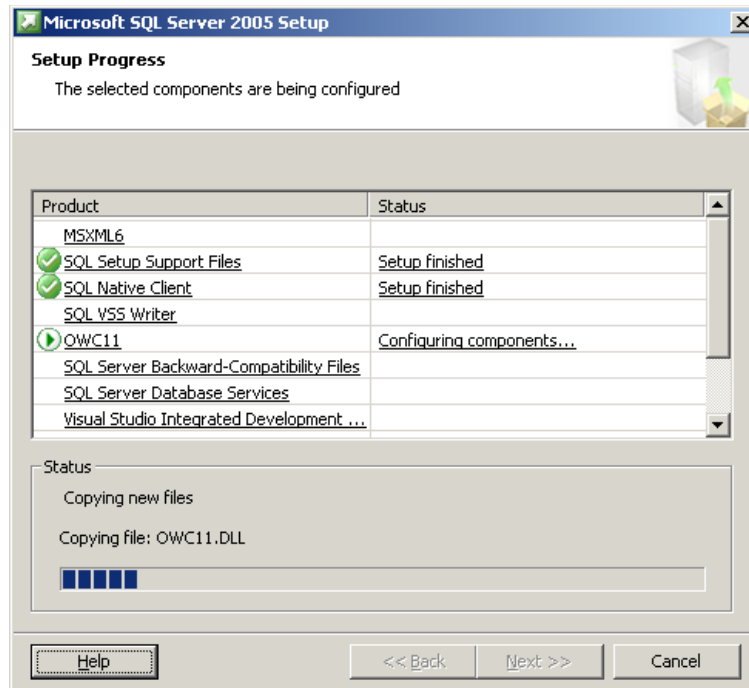


Figure 3.4.11 Setup Progress

Once the installation has completed, the “Completing Microsoft SQL Server 2005 Setup” appears. Click on “Finish” to complete the installation.

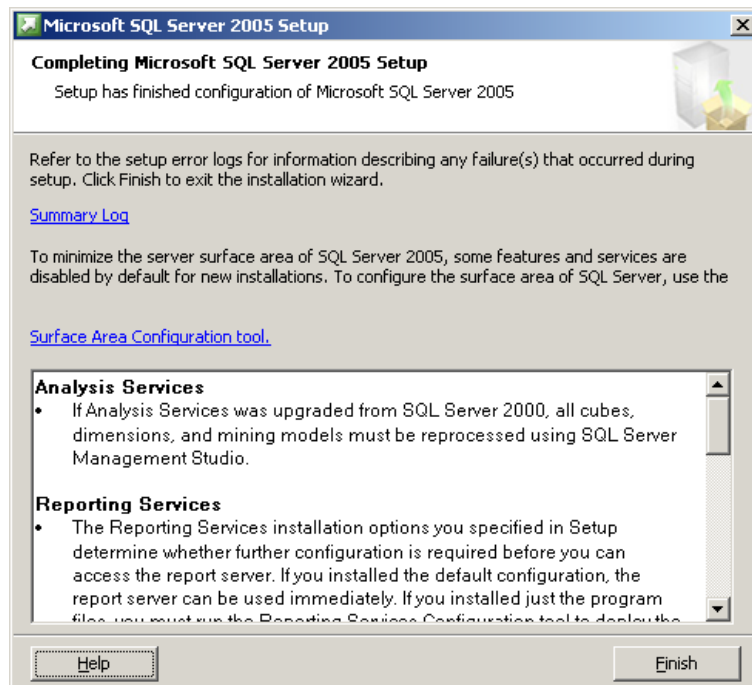


Figure 3.4.12 Complete Microsoft SQL Server 2005 Setup

3.4.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to **START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL)**.

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on “start.”

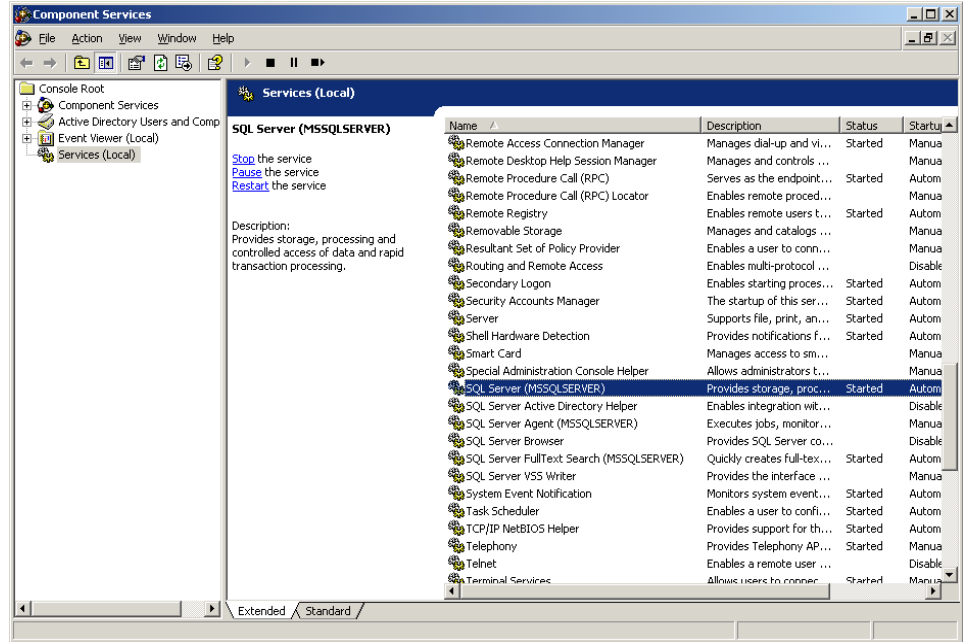


Figure 3.4.13 Manually starting the SQL server service

3.4.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to **START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS**.

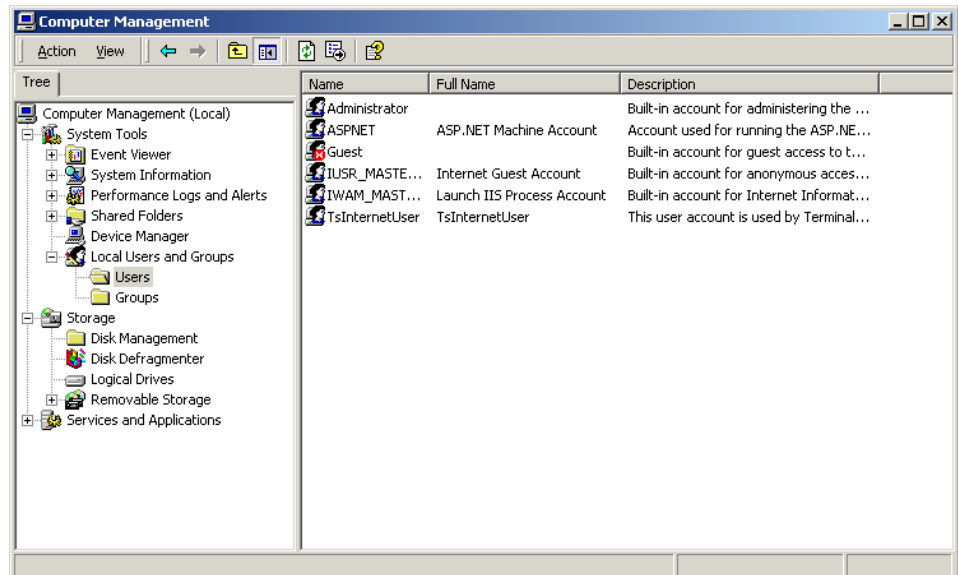


Figure 3.4.14 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

The 'New User' dialog box features a title bar with a question mark and a close button. It contains the following fields and options:

- User name: [Text input field]
- Full name: [Text input field]
- Description: [Text input field]
- Password: [Text input field]
- Confirm password: [Text input field]
- User must change password at next logon
- User cannot change password
- Password never expires
- Account is disabled

Buttons: Create, Close

Figure 3.4.15 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

The 'Raychem Master Properties' dialog box has three tabs: General, Member Of, and Profile. The General tab is active. It displays the user name 'Raychem Master' and the following fields and options:

- Full name: [Text input field containing 'Raychem Master']
- Description: [Text input field]
- User must change password at next logon
- User cannot change password
- Password never expires
- Account is disabled
- Account is locked out

Buttons: OK, Cancel, Apply, Help

Figure 3.4.16 New user properties

Next, choose the Member Of tab and click on the Add button.

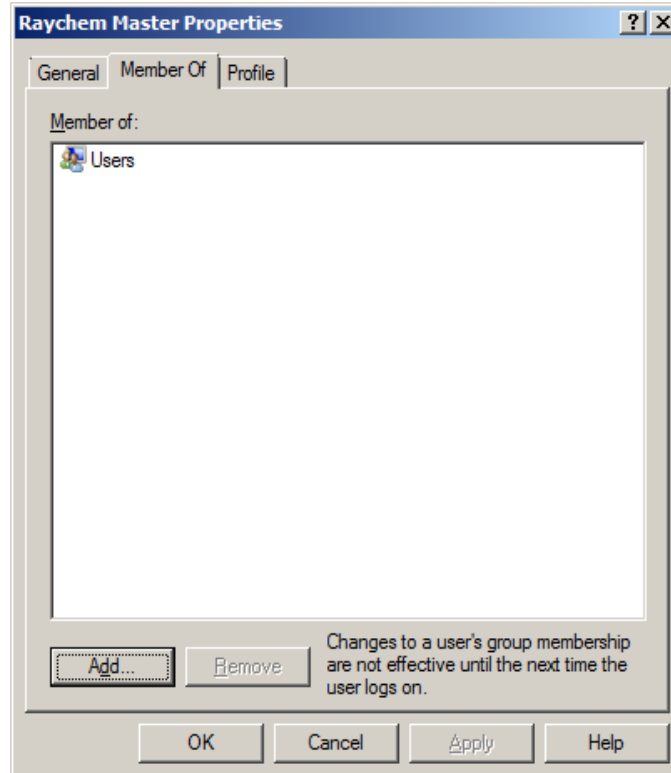


Figure 3.4.17 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

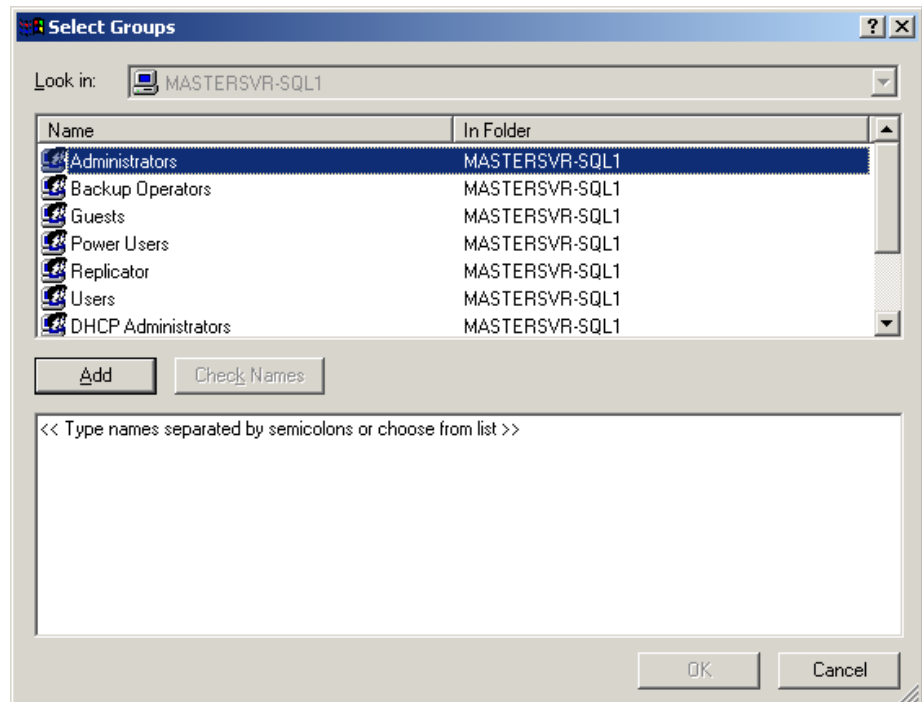


Figure 3.4.18 Set the new user as an administrator

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

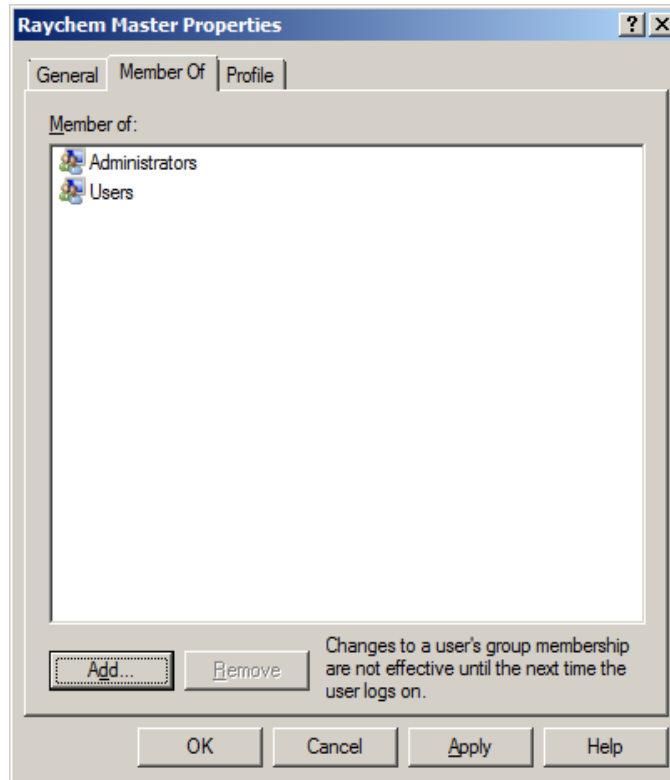


Figure 3.4.19 User Membership List

Click on "Apply" and then "OK." The new user name should be added to the list.

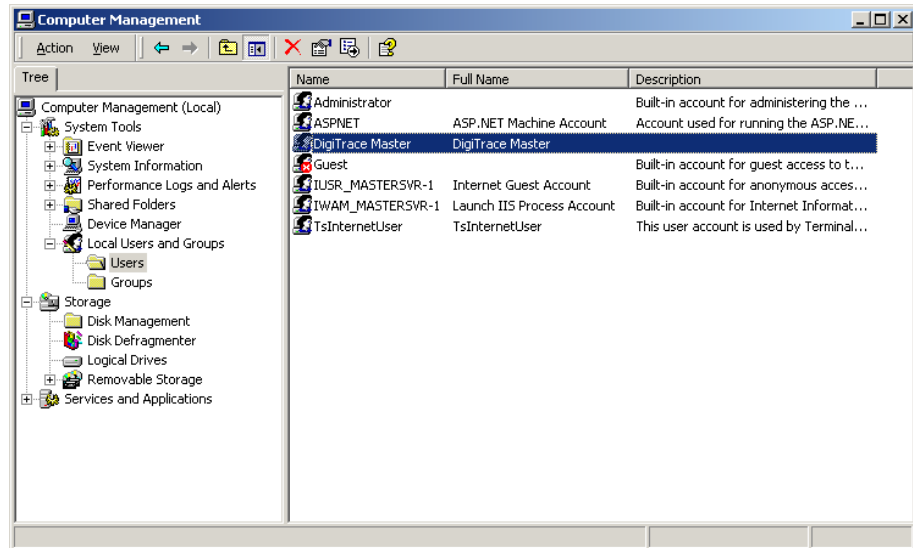


Figure 3.4.20 Addition of the new user

3.4.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2000 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www.microsoft.com/resources/sam/lic_cal.mspx.

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.5 UNINSTALLING MICROSOFT SQL SERVER 2005

You may remove Microsoft SQL Server 2005 from your computer system by following these steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select Microsoft SQL Server 2005. Click on the Remove button.
4. Follow the instructions that appear on the screen.

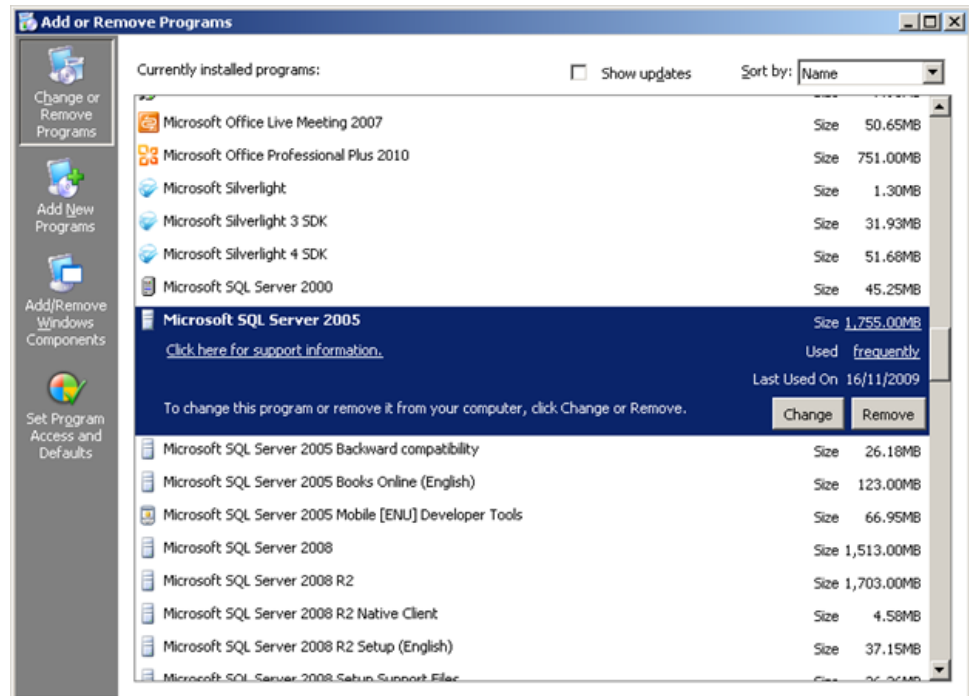




Figure 3.5.1 Remove Microsoft SQL Server 2005

3.6 INSTALLING MICROSOFT SQL SERVER 2008

To install Microsoft SQL Server 2008, insert the "Microsoft SQL Server 2008 Standard Edition" CD in your computer's CD-Rom drive. If the installation application does not start automatically, navigate to the CD-Rom drive (D:\ for example) and then double click on Autorun.exe.

 **Note:** This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.

 **Note:** If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or SQL Server may not install properly.

3.6.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the SQL Server installation Center screen appears, click on "Installation" menu item, and select "New SQL Server stand-alone installation or add features to an existing installation". The Microsoft SQL Server 2008 License Terms will appear. You must accept the license terms before you can move on with rest of the installation.

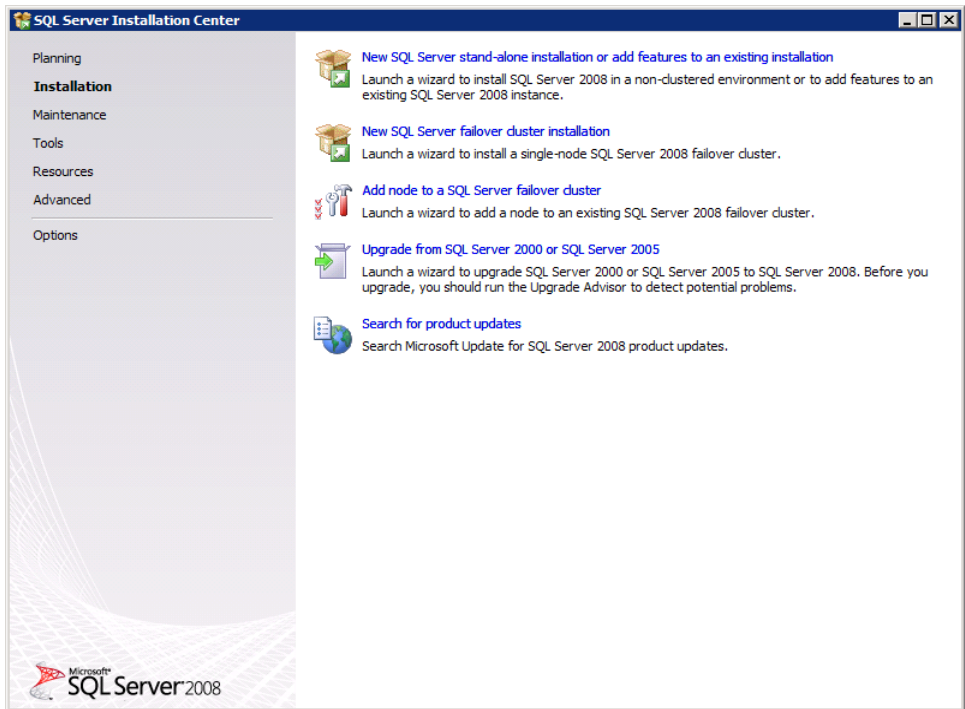


Figure 3.6.1 SQL Server 2008 Installation Center

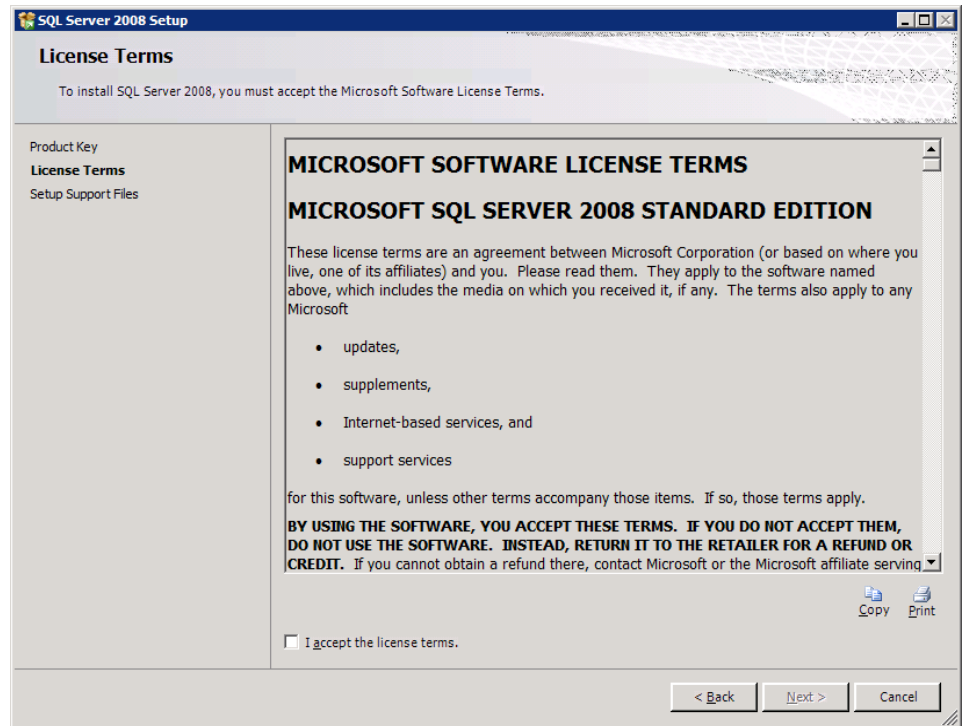


Figure 3.6.2 Microsoft Software License Terms for Microsoft SQL Server 2008 Standard Edition

Once the "Setup Support Files" screen appears, click on "Install" to start the Installation.

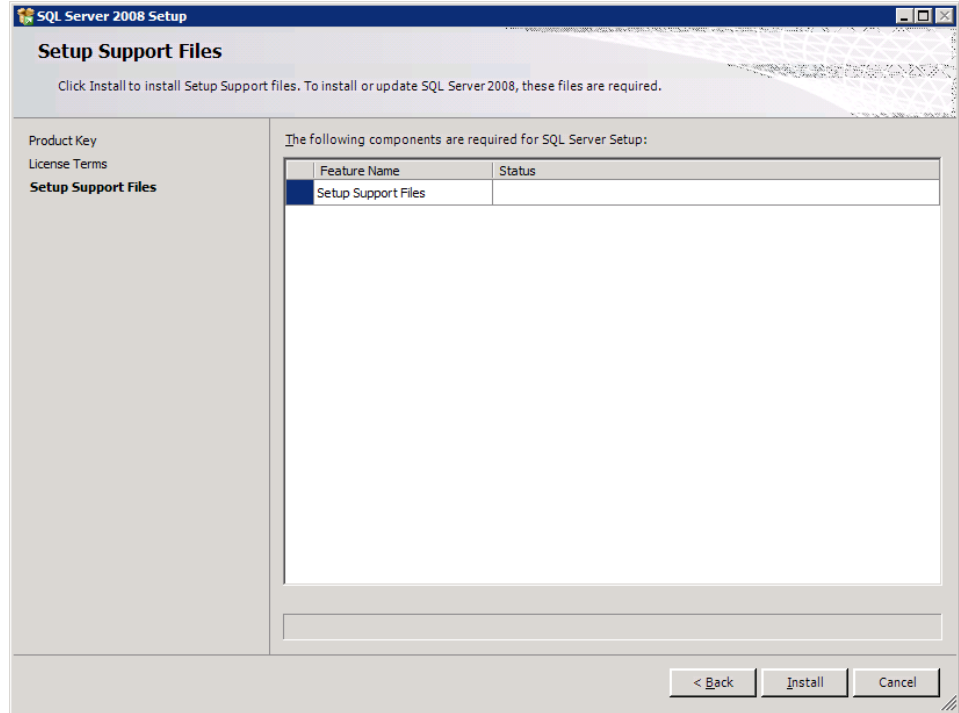


Figure 3.6.3 SQL Server 2008 Setup Support files

For the next couple of screens, follow the on screen instructions. When the "Feature Selection" screen appears, use the "Select All" for a full installation or manually select the feature that is needed. Click on "Next" to continue.

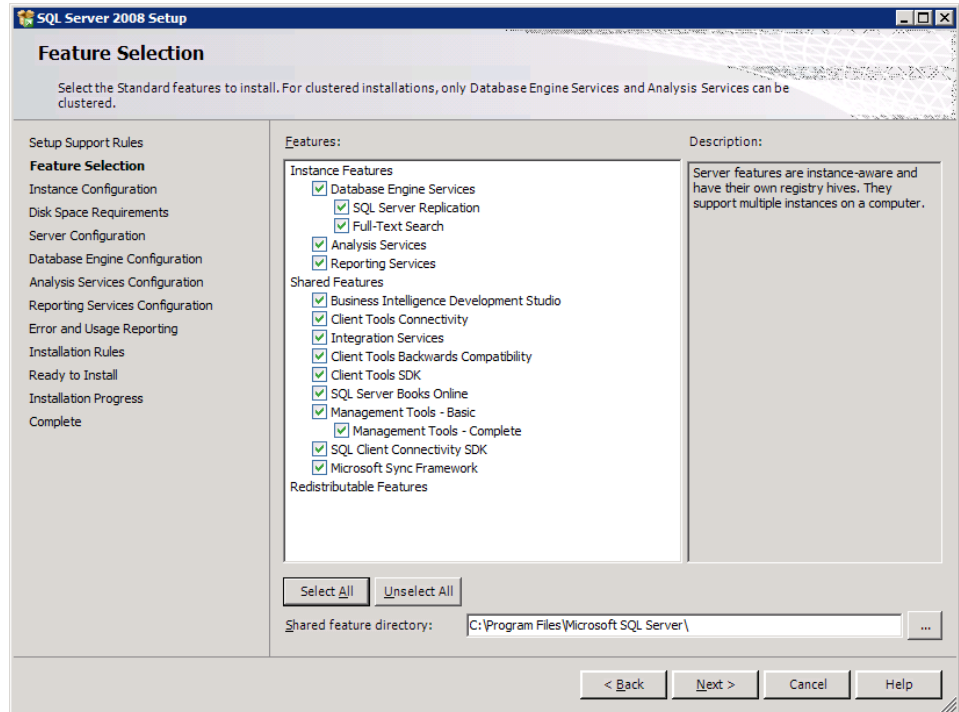


Figure 3.6.4 SQL Server 2008 Feature Selection screen

When the “Instance Configuration” screen appears, select Default Instance then click on “Next”.

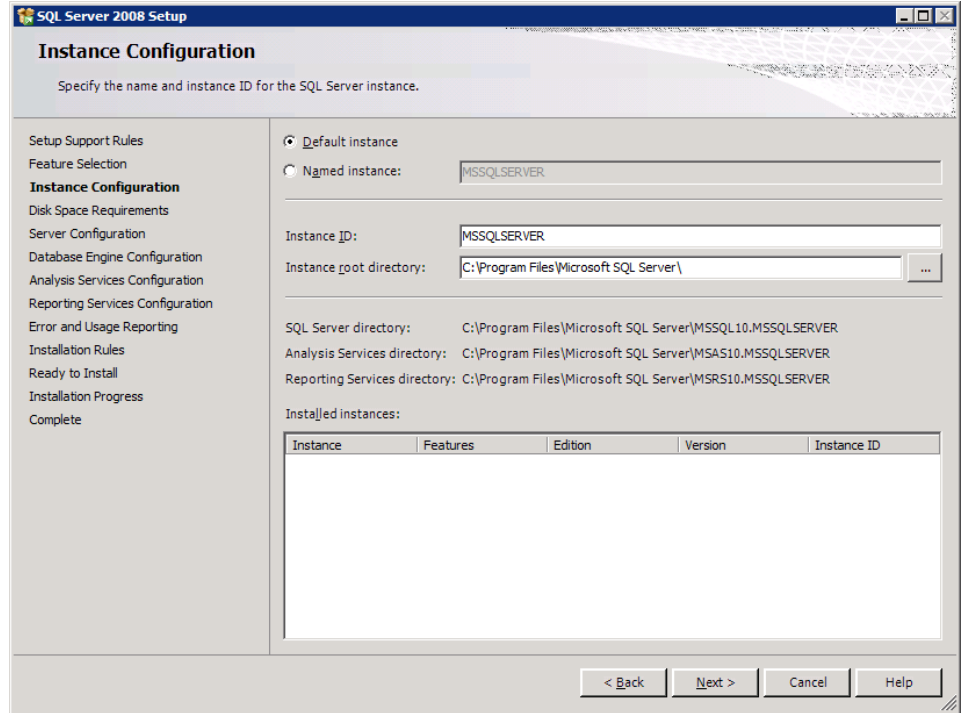


Figure 3.6.5 Instance Configuration screen

Continue until the Server Configuration screen is reached. In this screen, you must setup an account name for each Service displayed. Click on the “Collation” tab and check the Collation settings, edit them if required.

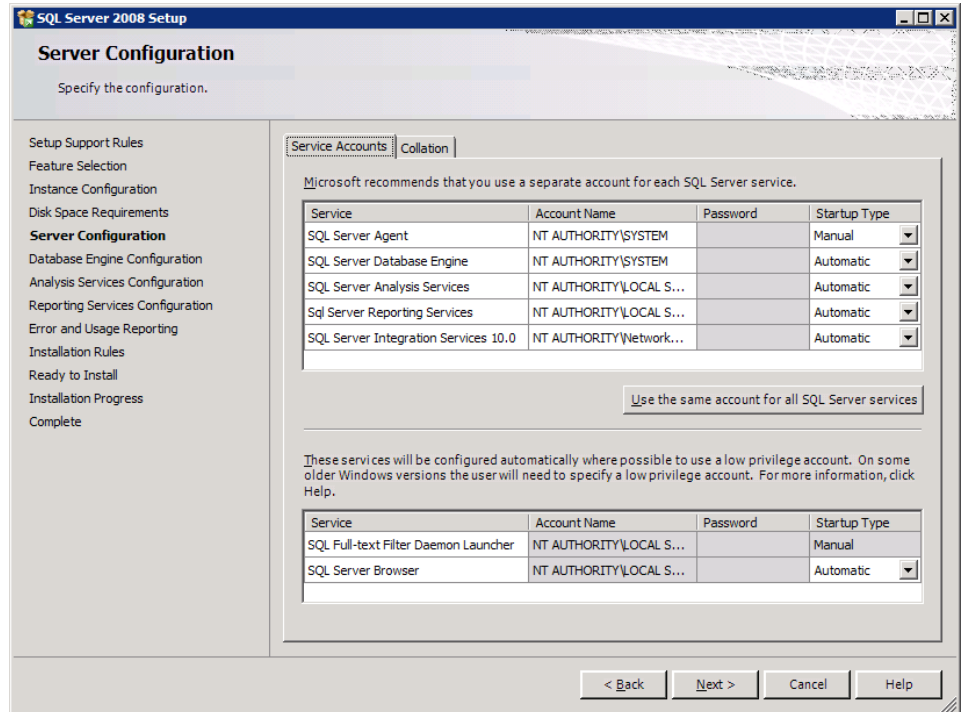


Figure 3.6.6 Server Configuration screen

When the “Database Engine Configuration” screen appears select Windows Authentication Mode. You must also have to specify a SQL Server administrator on this screen. This should be someone with admin privileges. Click on “Next” to continue.

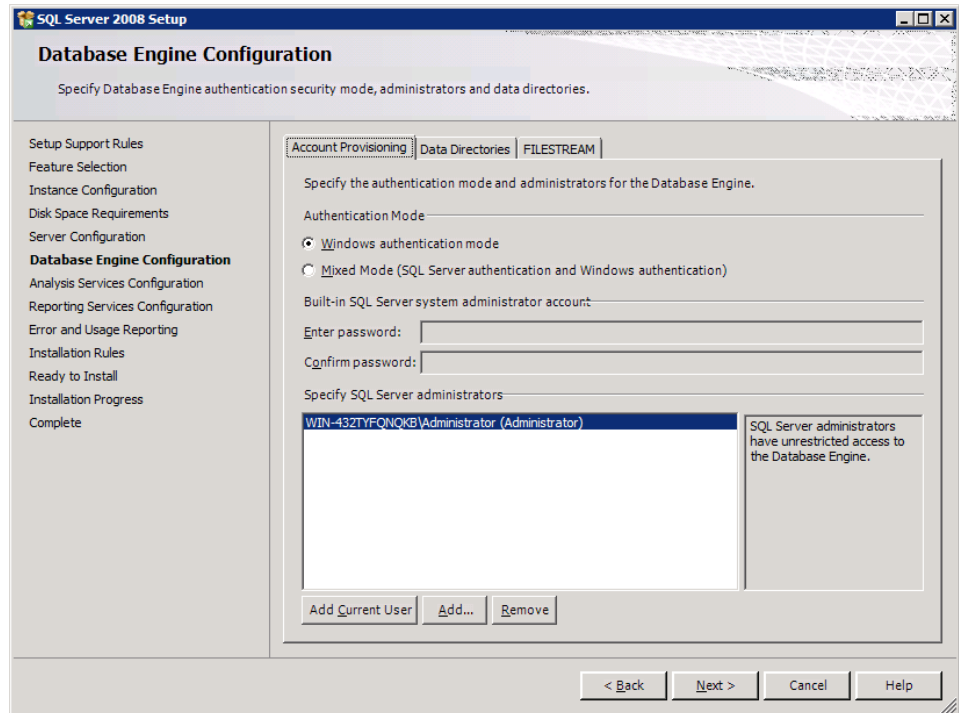


Figure 3.6.7 Database Engine Configuration screen

In the “Analysis Services Configuration” screen, specify a user that has permission to perform analysis services. Click on “Next.”

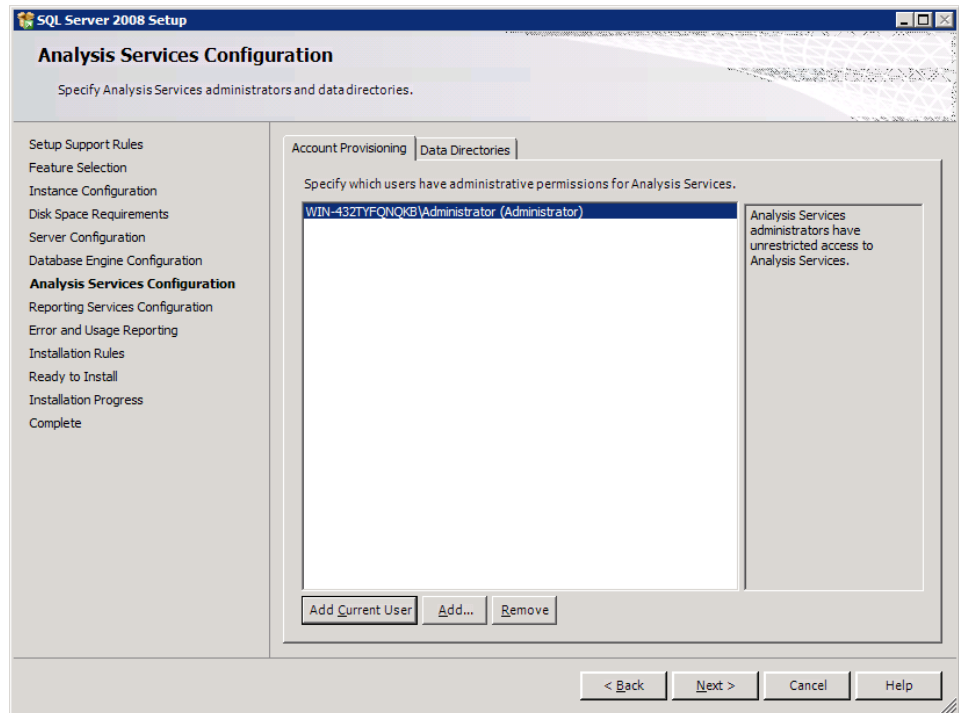


Figure 3.6.8 Analysis Services Configuration screen

On the “Reporting Services Configuration” screen, select a reporting service option, click on “Next.”

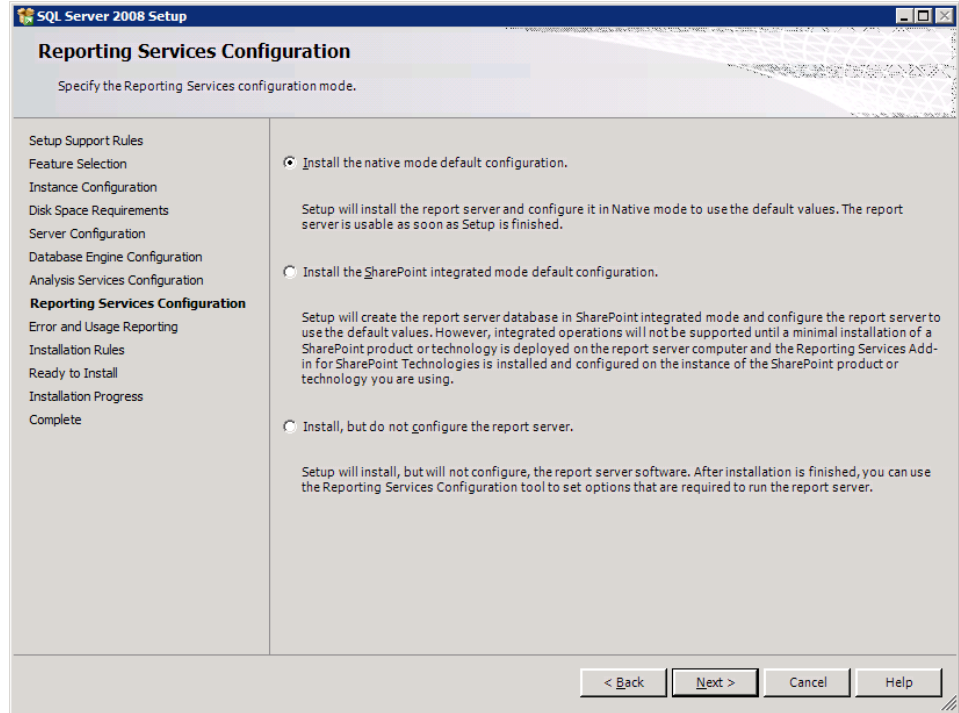


Figure 3.6.9 Reporting Services Configuration screen

Continue on with the next few screen, until the “Ready to Install” screen appear, click on “Install” to start the installation.

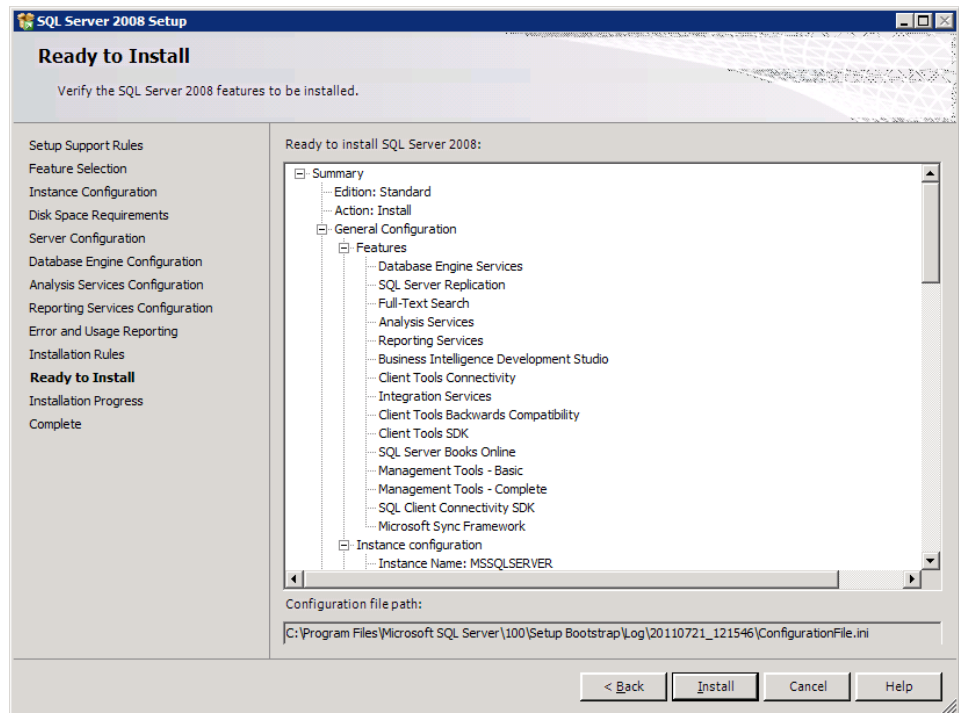


Figure 3.6.10 Ready to Install screen

Once the installation has started the “Setup Progress” screen appears. The installation will take some time to complete. When the installation completes, the “Installation progress” screen will be displayed. If there are no errors encountered click on “Next”.

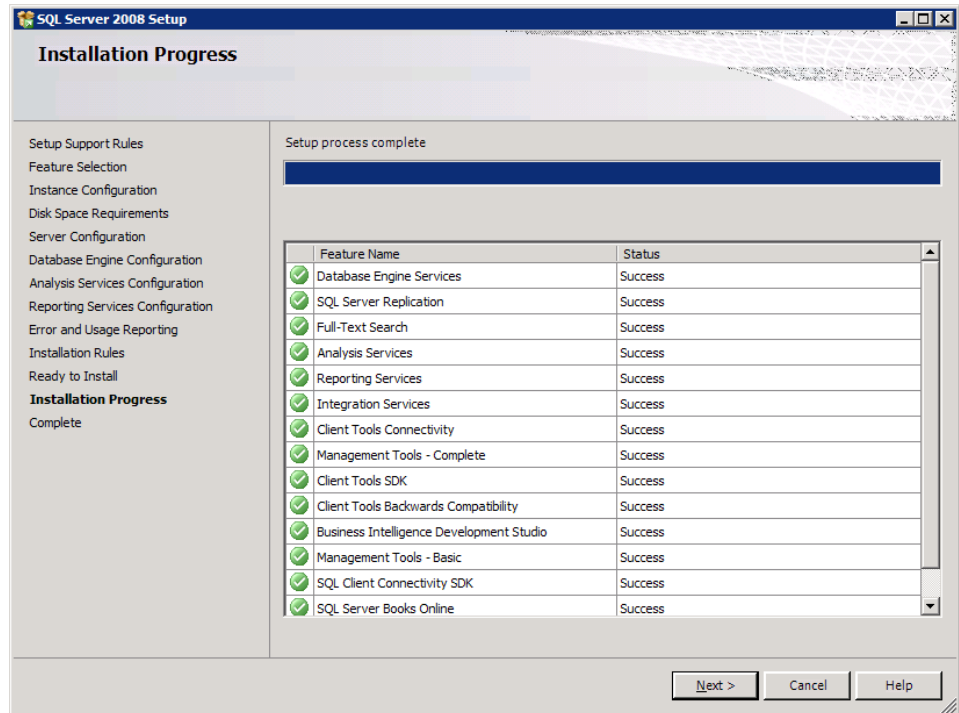


Figure 3.6.11 Setup Progress

The "Complete" appears. Click on "Close" to exit the installation.

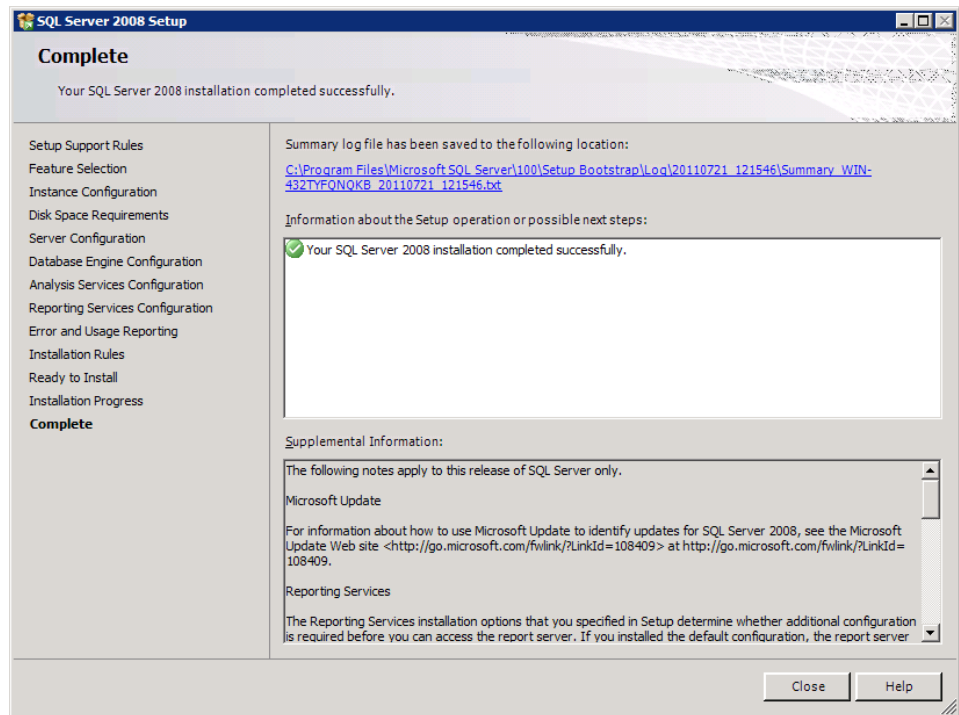


Figure 3.6.12 Complete Microsoft SQL Server 2008 Setup

3.6.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on “start.”

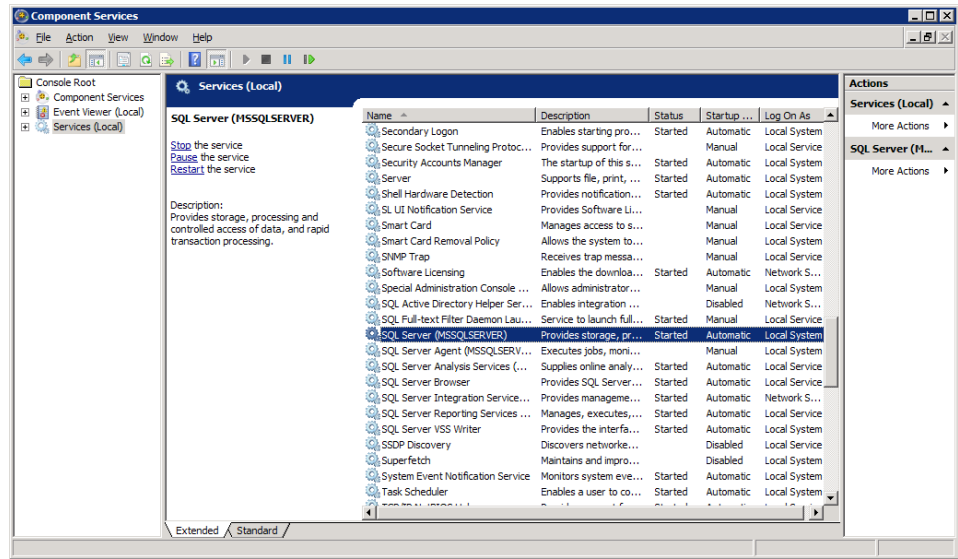


Figure 3.6.13 Manually starting the SQL server service

3.6.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the service.

To accomplish this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS.

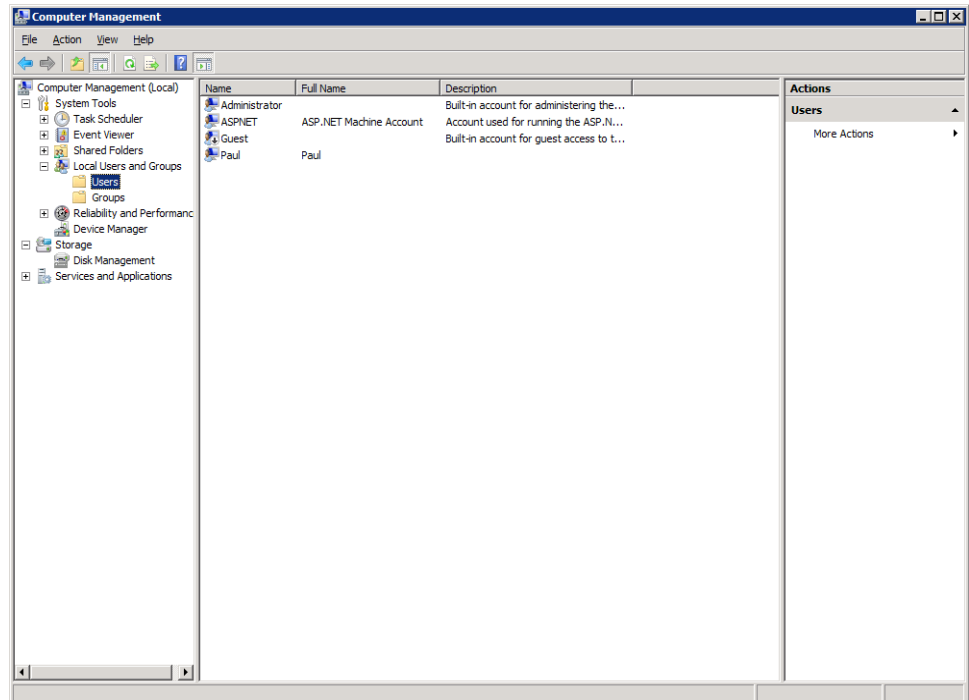


Figure 3.6.14 Creating a new local user

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

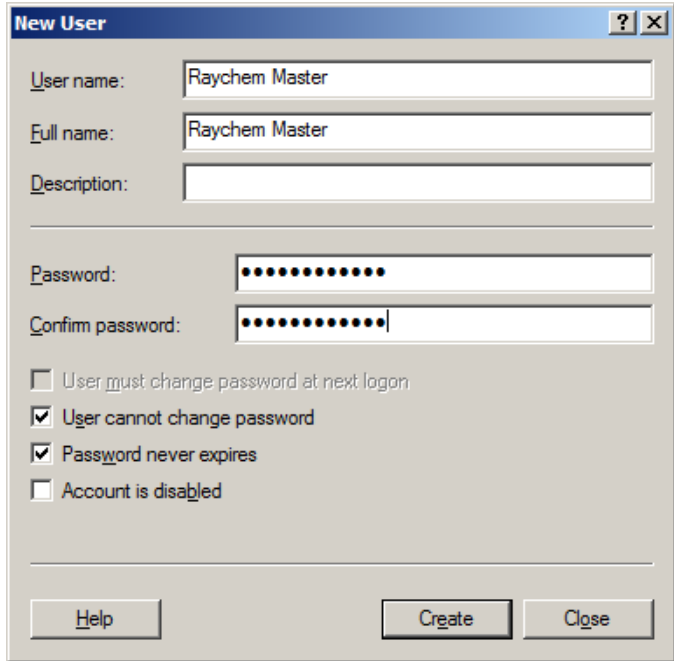


Figure 3.6.15 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

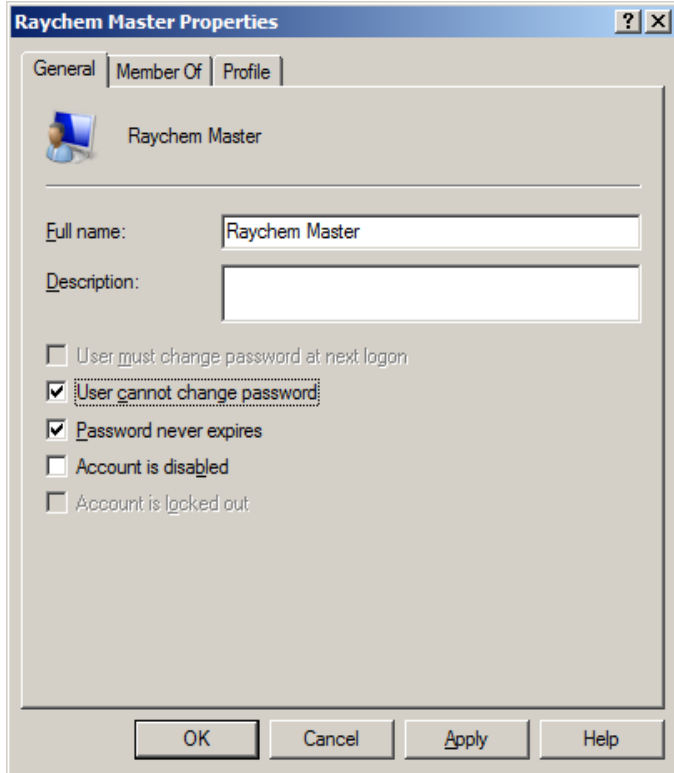


Figure 3.6.16 New user properties

Next, choose the Member Of tab and click on the Add button.

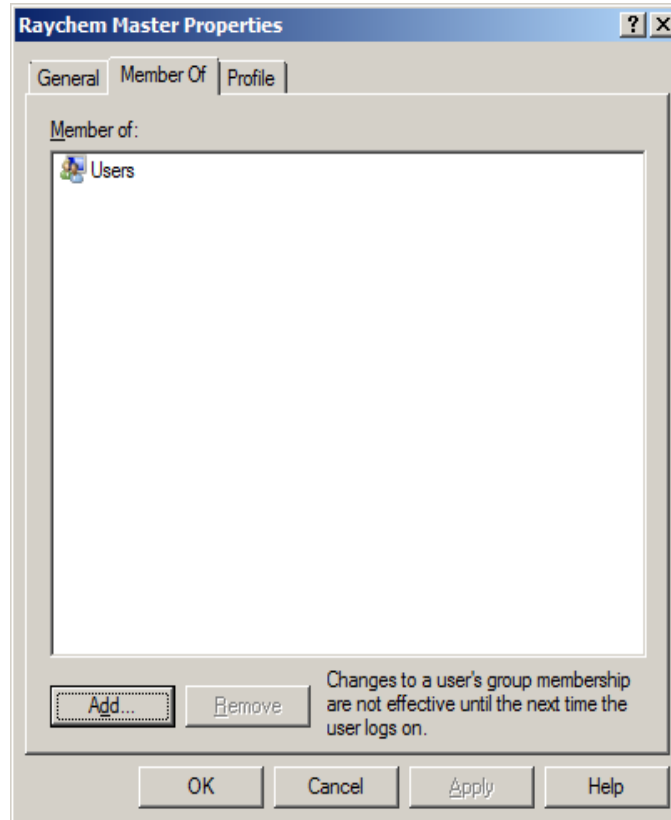


Figure 3.6.17 New user group assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

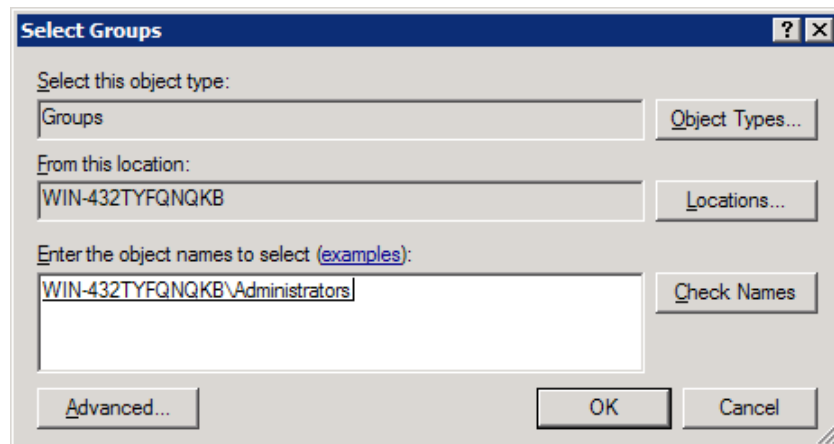


Figure 3.6.18 Set the new user as an administrator

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

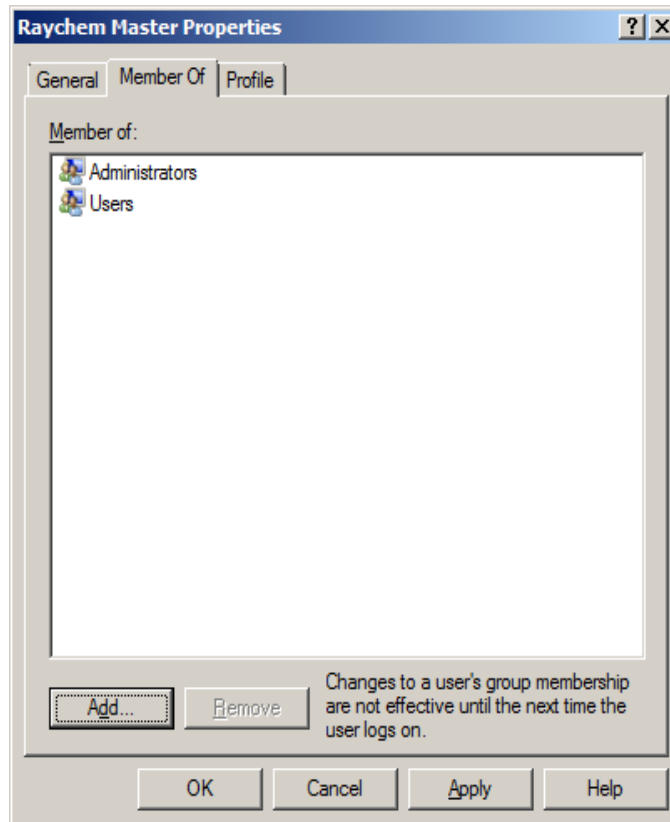


Figure 3.6.19 User Membership List

Click on "Apply" and then "OK." The new user name should be added to the list.

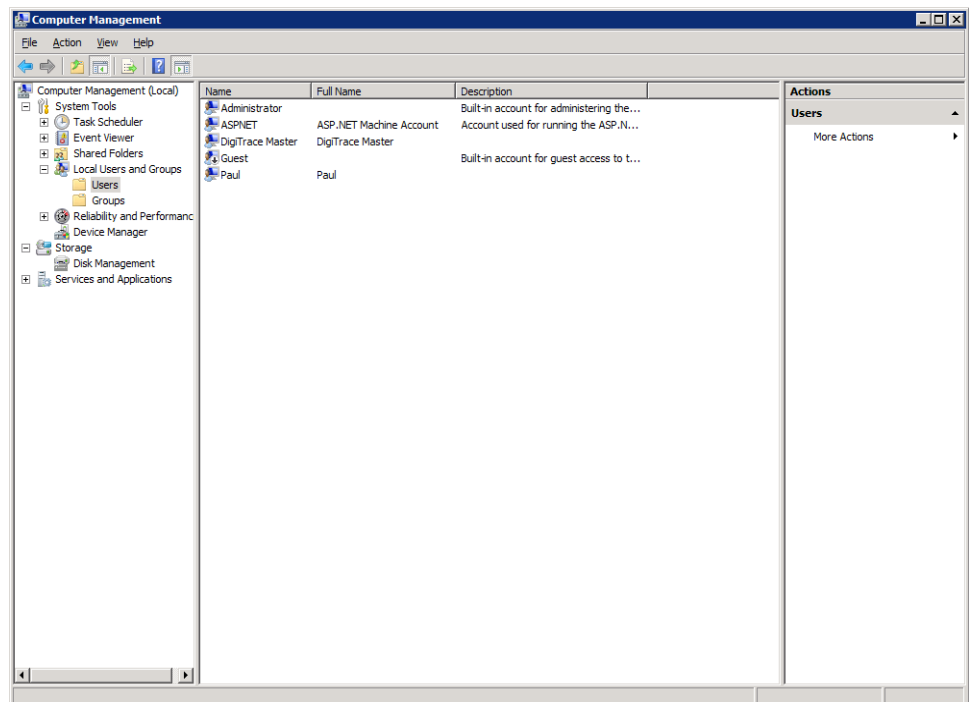


Figure 3.6.20 Addition of the new user

3.6.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows 2003 Server or Windows 2008 Server as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www.microsoft.com/resources/sam/lic_cal.aspx.

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM system.

3.7 UNINSTALLING MICROSOFT SQL SERVER 2008

You may remove Microsoft SQL Server 2008 from your computer system by following these steps:

5. Click the START button, then Select Control Panel.
6. Double-Click Add/Remove Programs.
7. In the list of installed programs, select Microsoft SQL Server 2008. Click on the Remove button.
8. Follow the instructions that appear on the screen.

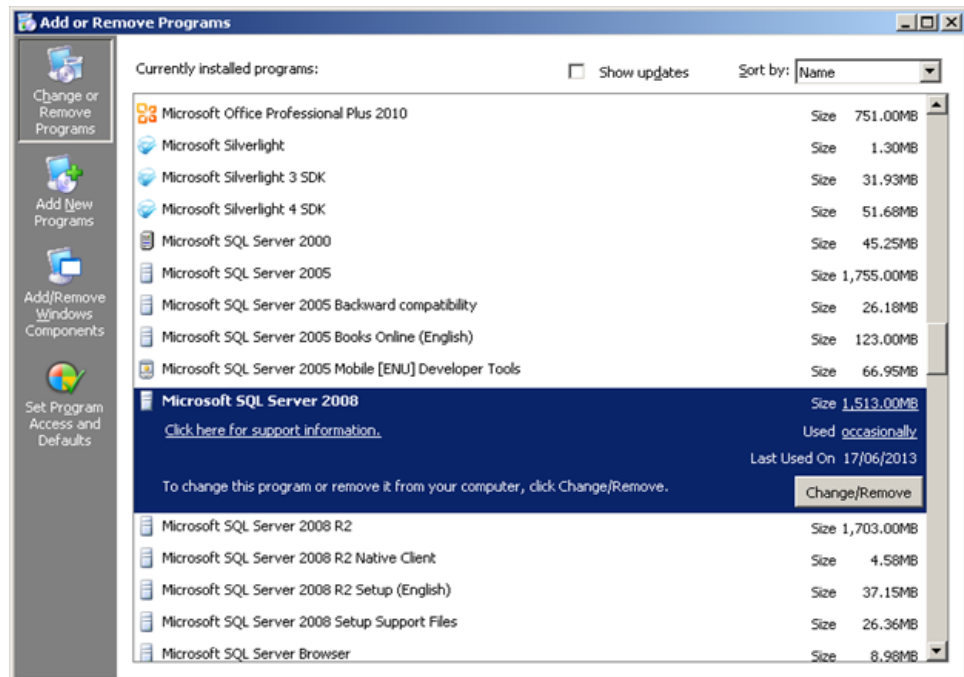




Figure 3.7.1 Remove Microsoft SQL Server 2008

3.8 INSTALLING MICROSOFT SQL SERVER 2012 TO 2019

The installation procedures for Microsoft SQL Server 2012 to 2019 are quite similar therefore the steps described in this section can be used for all identified versions of Microsoft SQL Server.

To install Microsoft SQL Server insert the required media and execute the applicable *Setup.exe file.

-  **IMPORTANT:** This section applies to RAYCHEM Supervisor Enterprise, versions 2.2 and later. If you are installing version 2.1 and earlier, you should refer to Section 3.2 of this guide.
-  **IMPORTANT:** If you are upgrading from a standard (SQL EXPRESS) version of RAYCHEM Supervisor, be sure to follow the procedure in the SQL EXPRESS Installation manual to uninstall SQL EXPRESS first. Ensure that you have completed all of the steps or the SQL Server may not install properly.

3.8.1 INSTALLING THE DATABASE SERVER COMPONENTS

Once the “SQL Server installation Center” screen appears, click on “Installation” menu item, and select “New SQL Server stand-alone installation or add features to an existing installation”. The setup will perform a series of diagnostic to identify problems before allowing the installation to continue. If no problems are reported, you will be prompted to input the License key and you must accept the License terms when the Microsoft SQL Server License Terms appears.

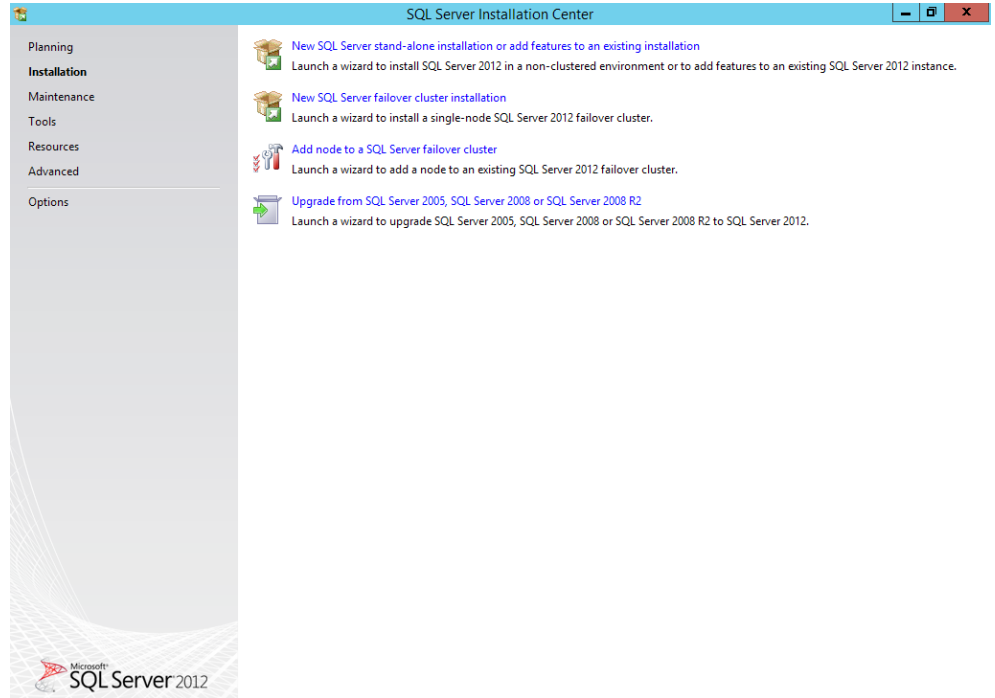


Figure 3.8.1 SQL Server Installation Center

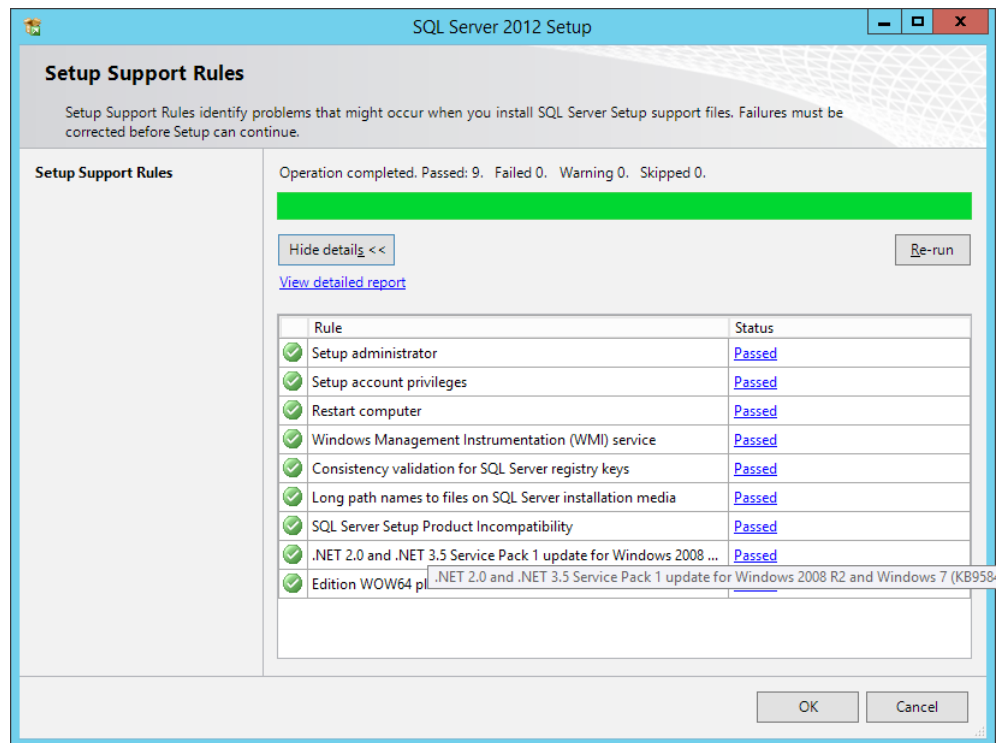


Figure 3.8.2 SQL Server Setup Support Rules

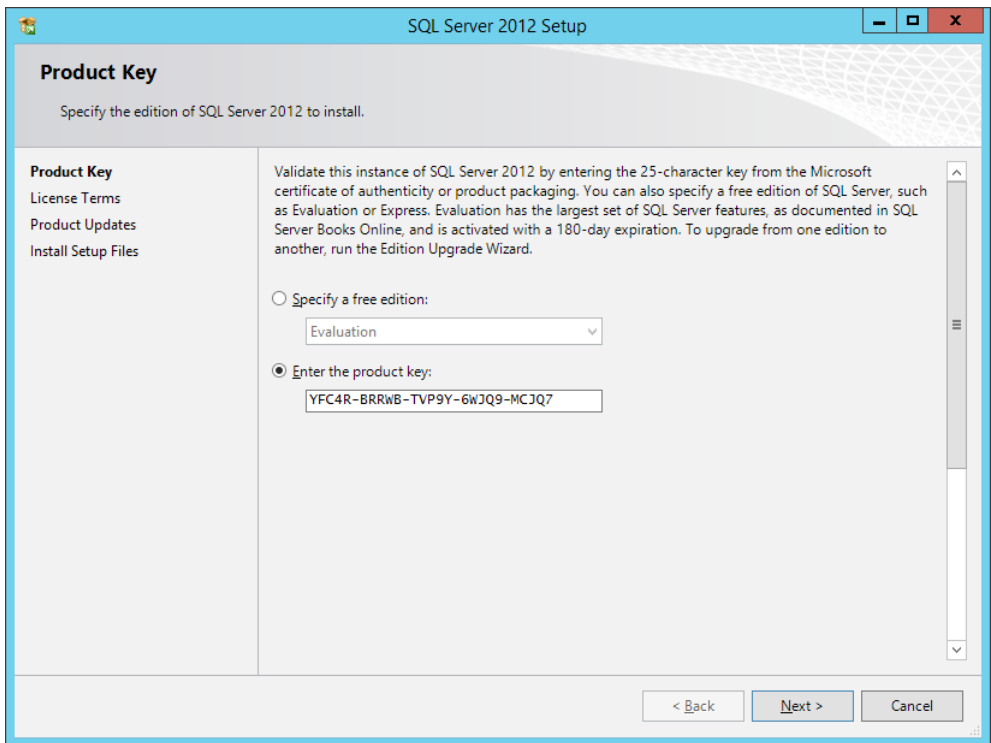


Figure 3.8.3 SQL Server Product Key

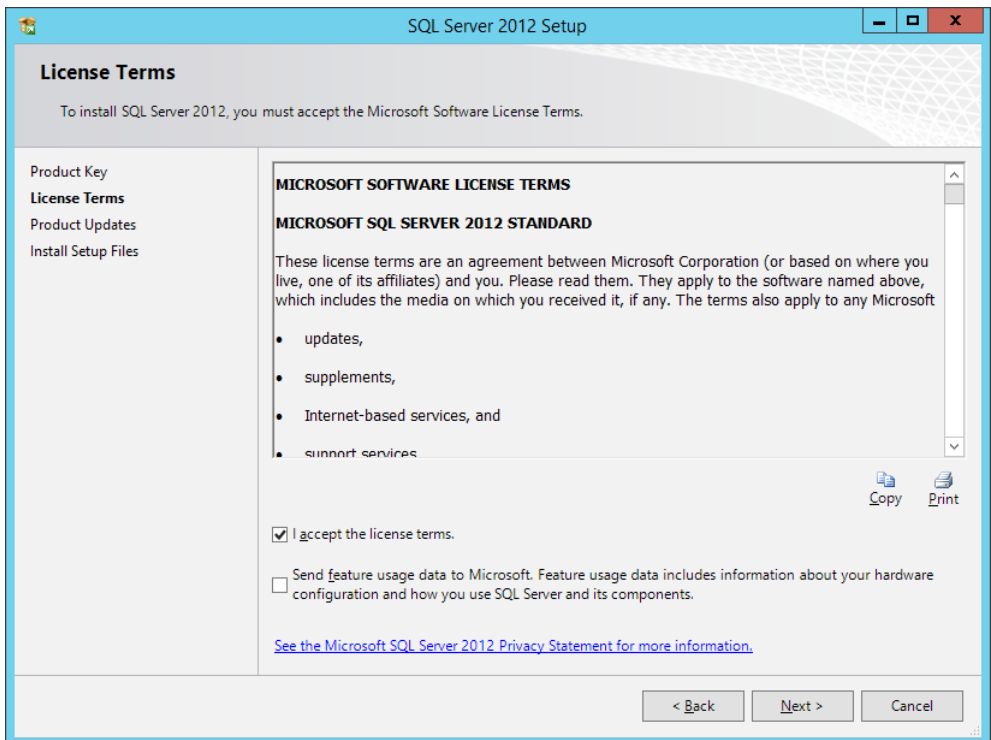


Figure 3.8.4 SQL Server License Agreement

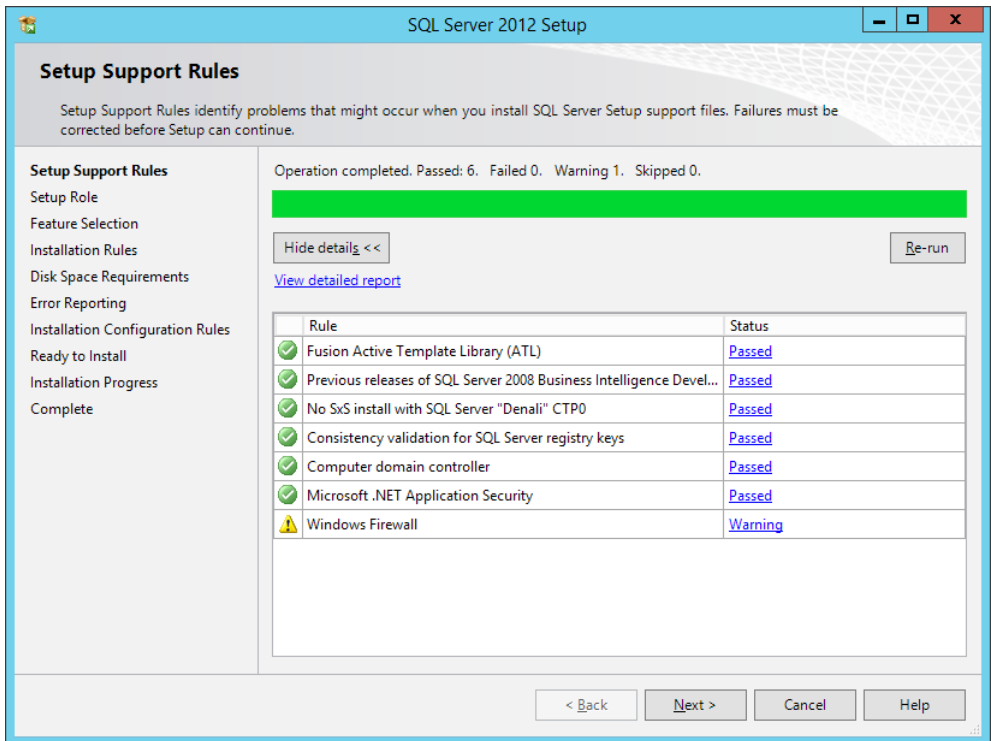


Figure 3.8.5 SQL Server Setup Support Rules

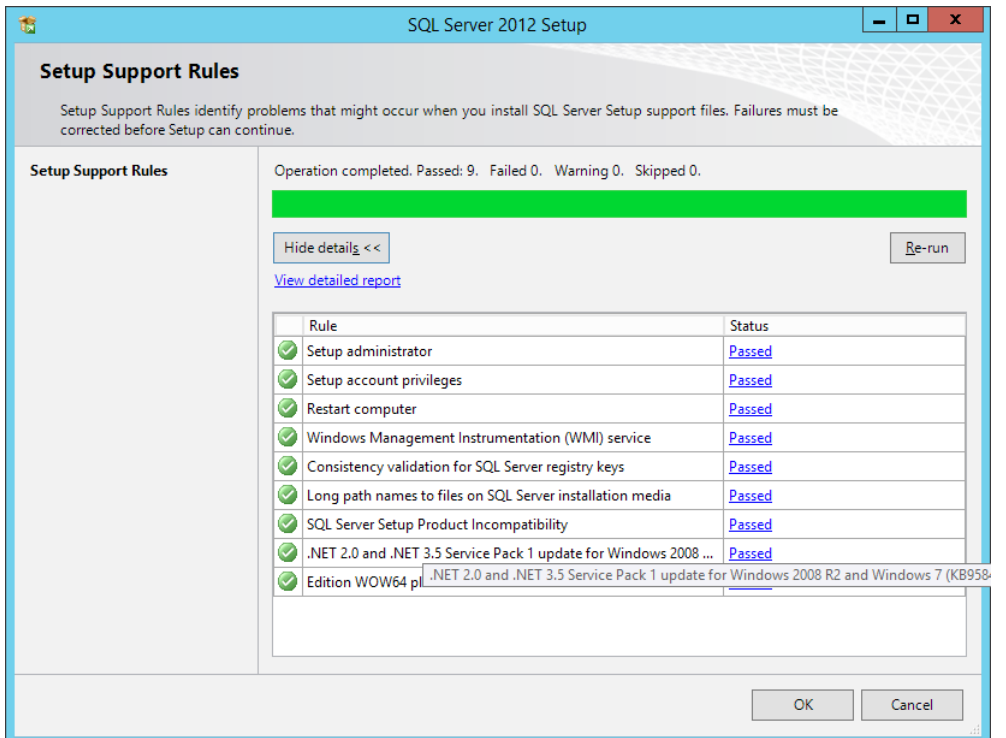


Figure 3.8.6 SQL Server Setup Support Rules

For the next couple of screens, follow the on screen instructions. When the "Feature Selection" screen appears, use the "Select All" for a full installation or manually select the feature that is needed. Click on "Next" to continue.

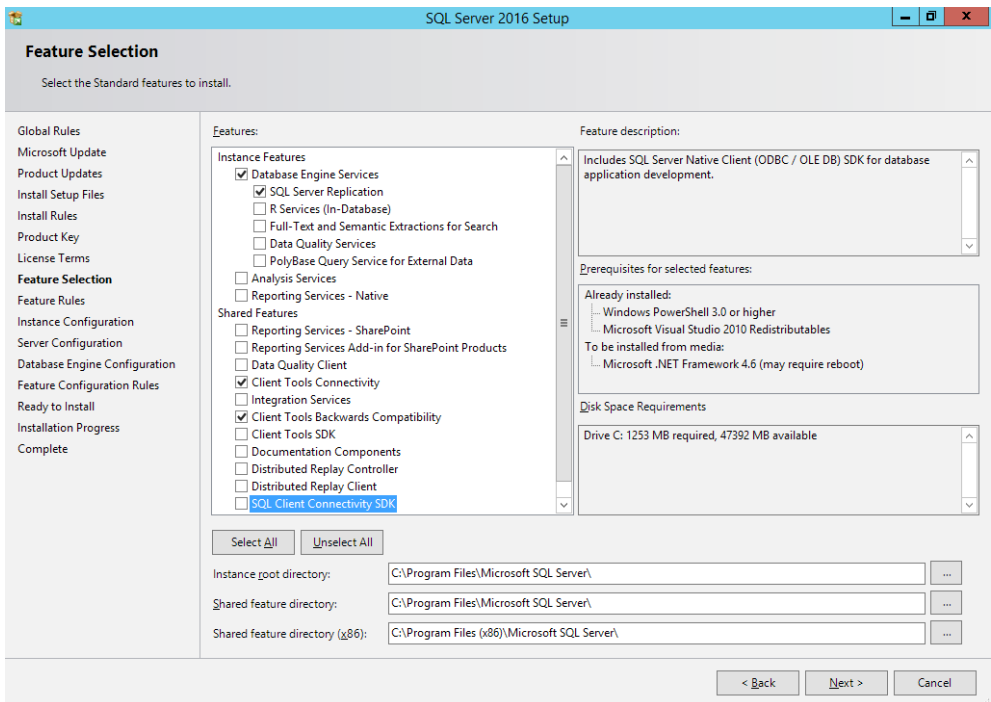


Figure 3.8.7 SQL Server 2012 Feature Selection

The Management Tools option is no longer part of the “Feature Selection” screen. This option resides in the Installation section of the “SQL Server Installation Center” screen. You can install the Management tool separately as required. The Management tool is needed for backup and restore SQL databases.

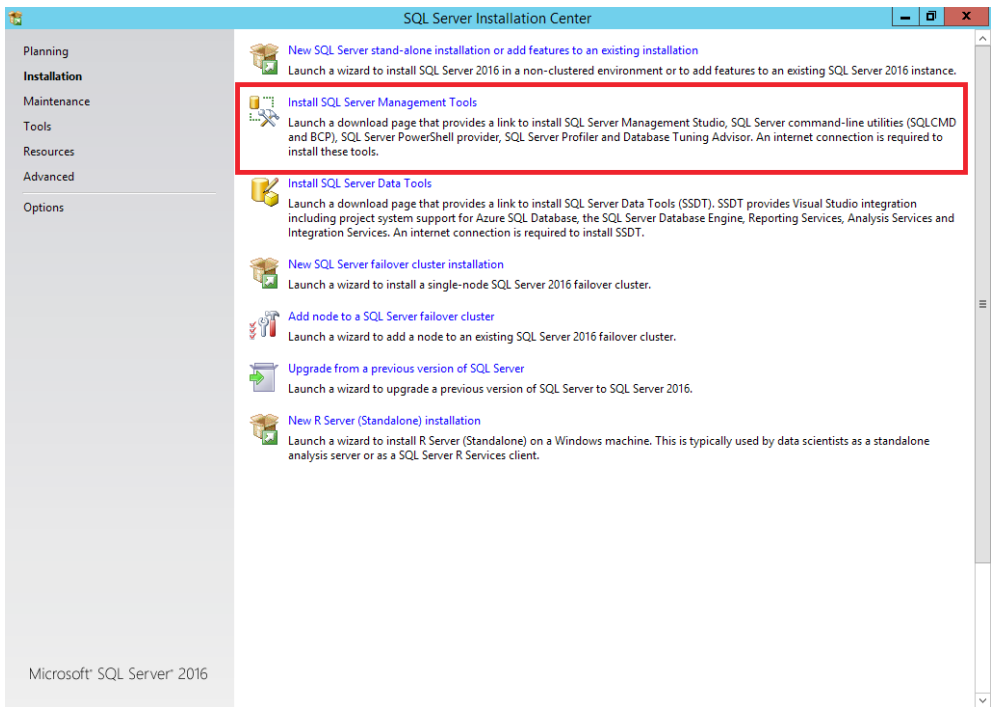


Figure 3.8.8 SQL Server 2016 Management Studio Installation

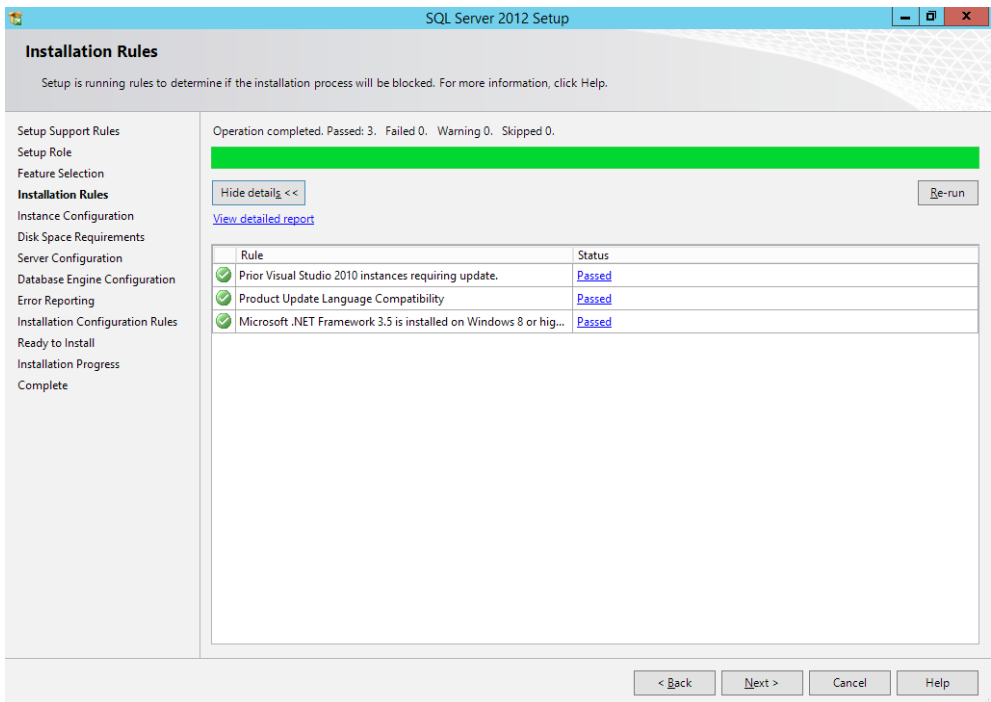


Figure 3.8.9 SQL Server Installation Rule

When the “Instance Configuration” screen appears, select Default Instance then click on “Next”.

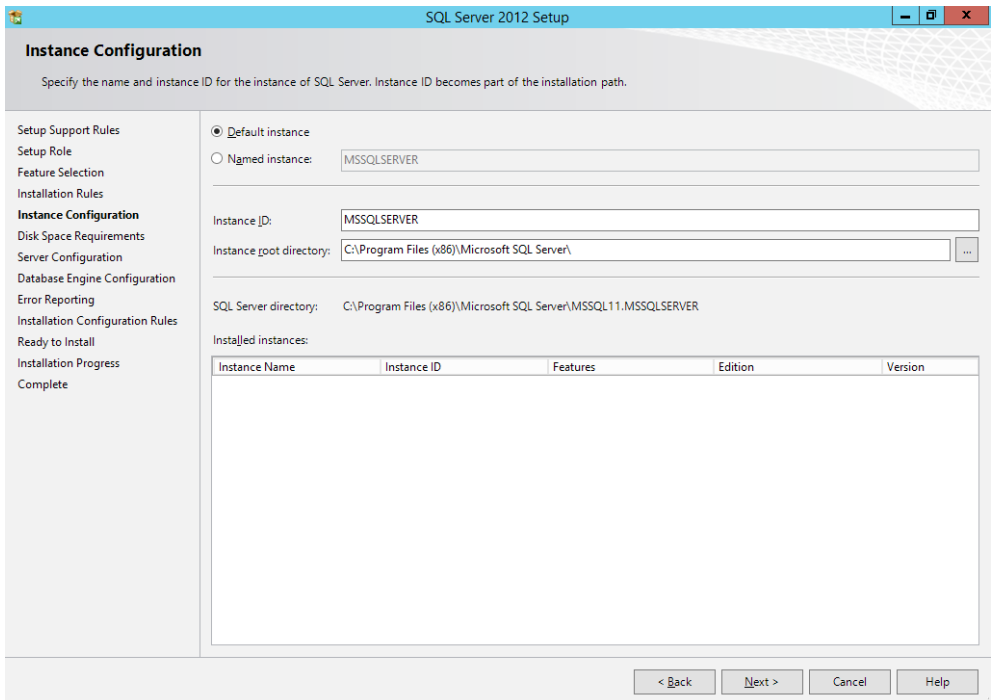


Figure 3.8.10 SQL Server Instance Configuration

Continue until the “Server Configuration” screen is reached. In this screen, you must setup an account name for each Service displayed. Edit them if required otherwise leave them as is. Click on the “Collation” tab and check the Collation settings, edit them if required.

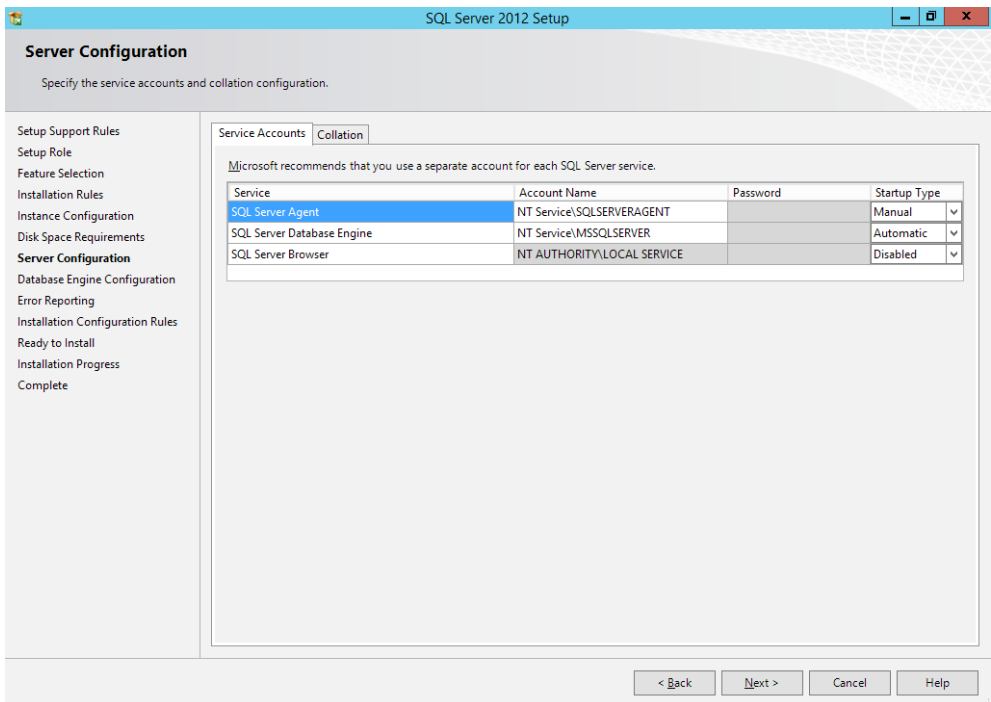


Figure 3.8.11 SQL Server Server Configuration

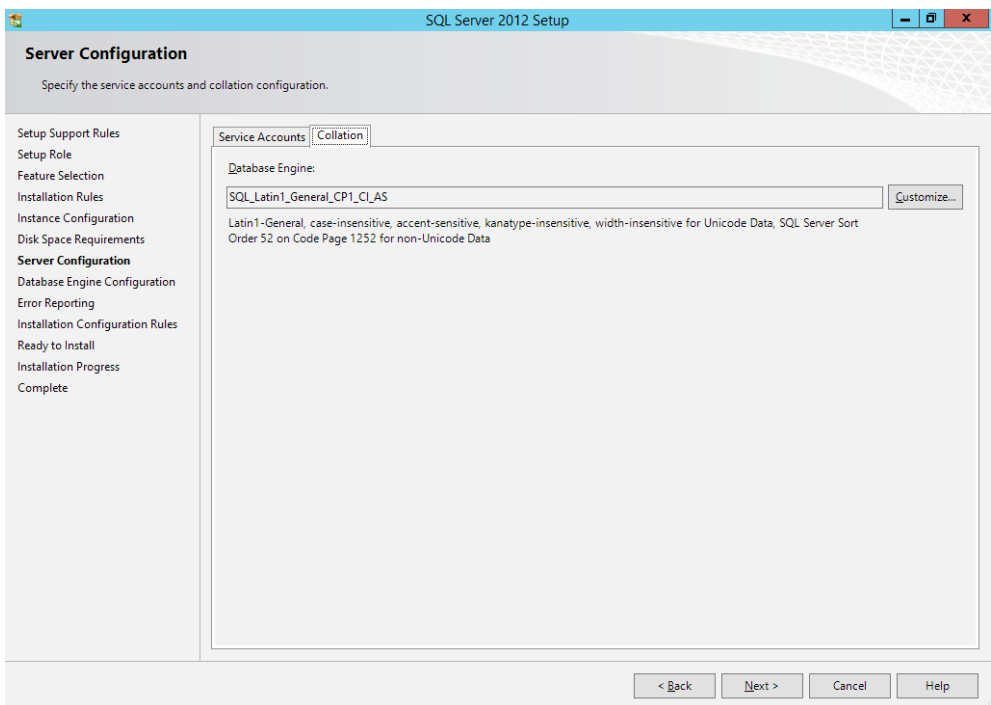


Figure 3.8.12 SQL Server Server Collation

When the “Database Engine Configuration” screen appears select Windows Authentication Mode. You must also have to specify a SQL Server administrator on this screen. This should be someone with admin privileges. Click on “Next” to continue.

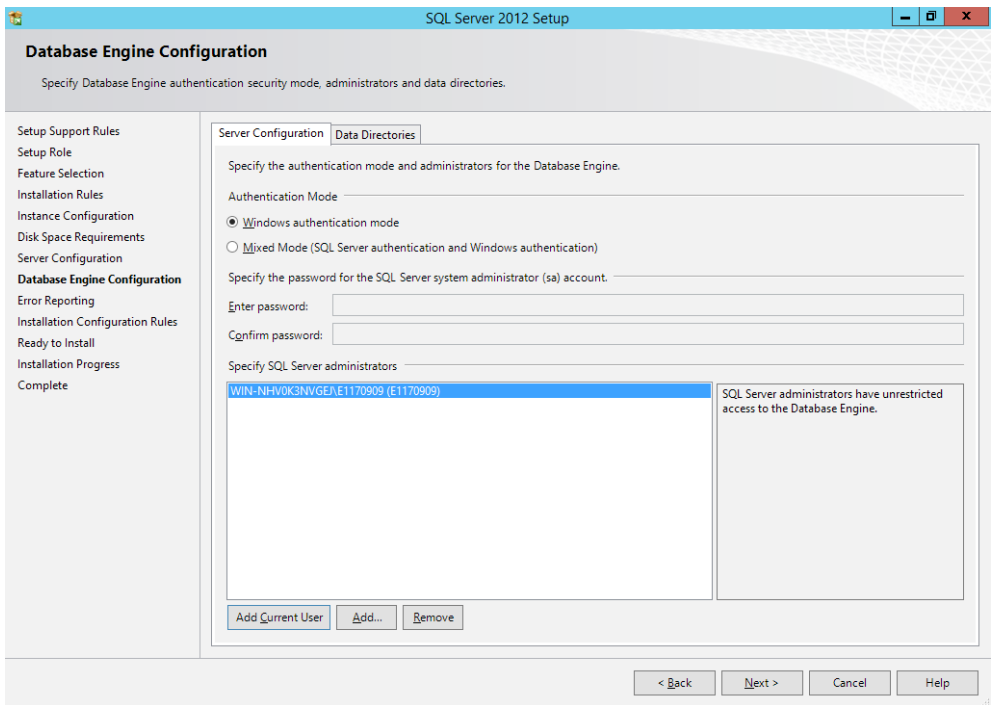


Figure 3.8.13 SQL Server Database Engine Configuration

The next sets of screen are for “Error Reporting” and “Installation Configuration Rules”. Click on “Next” to continue.

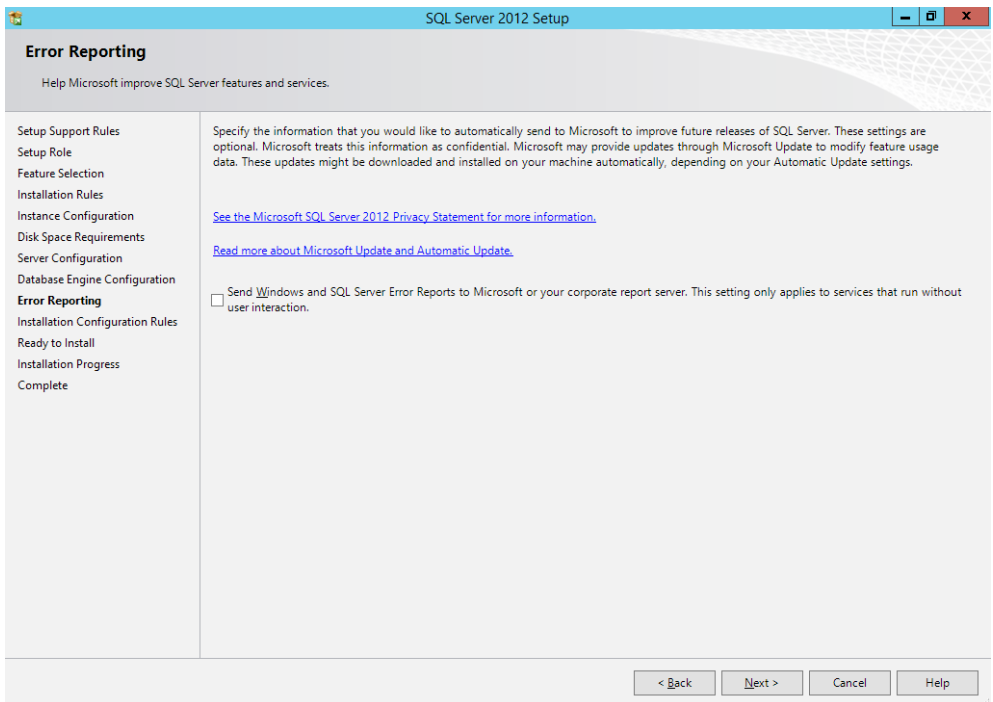


Figure 3.8.14 SQL Server Error Reporting

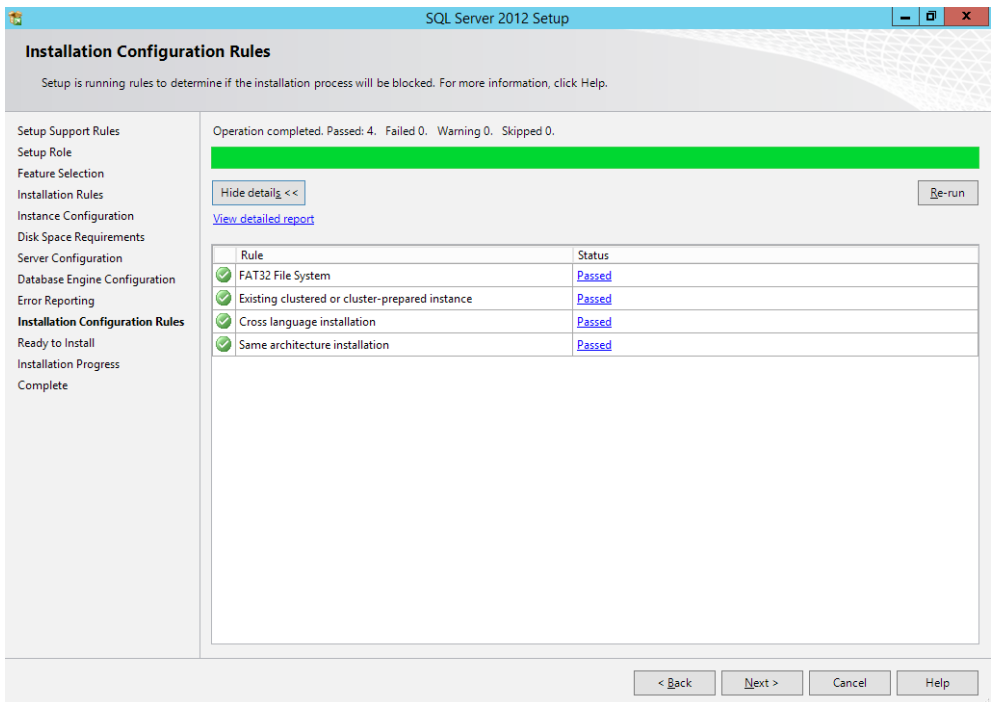


Figure 3.8.15 SQL Server Installation Configuration Rules

When the “Ready to Install” screen is reached, the setup is ready to install SQL Server onto your computer. Click on “Install” to start the installation.

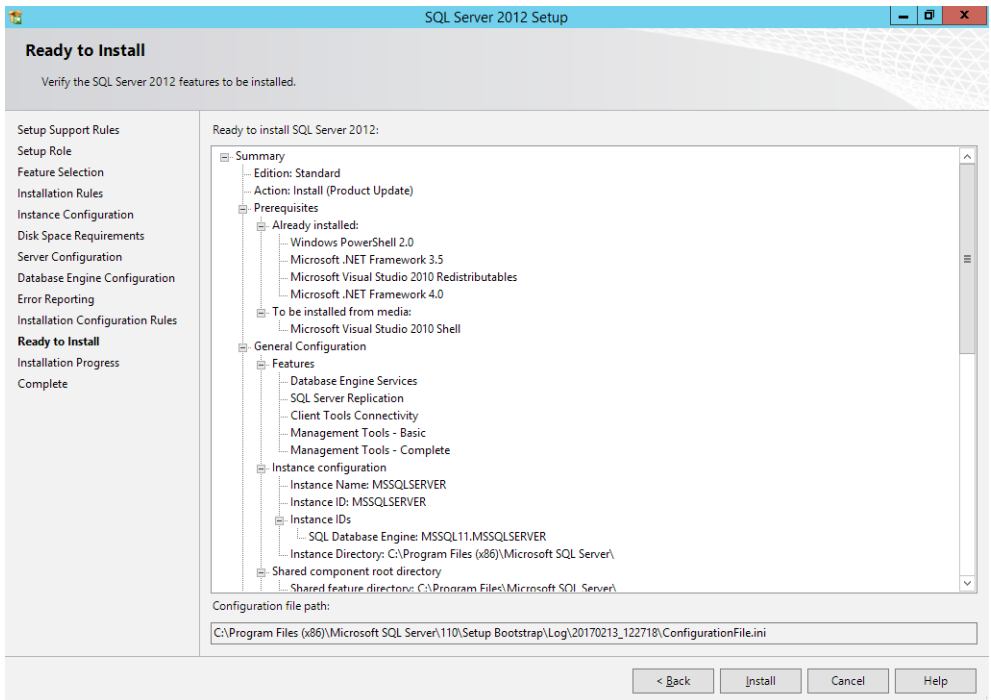


Figure 3.8.16 SQL Server Ready to Install

When the installation is complete, Click on “Close” to exit the installation.

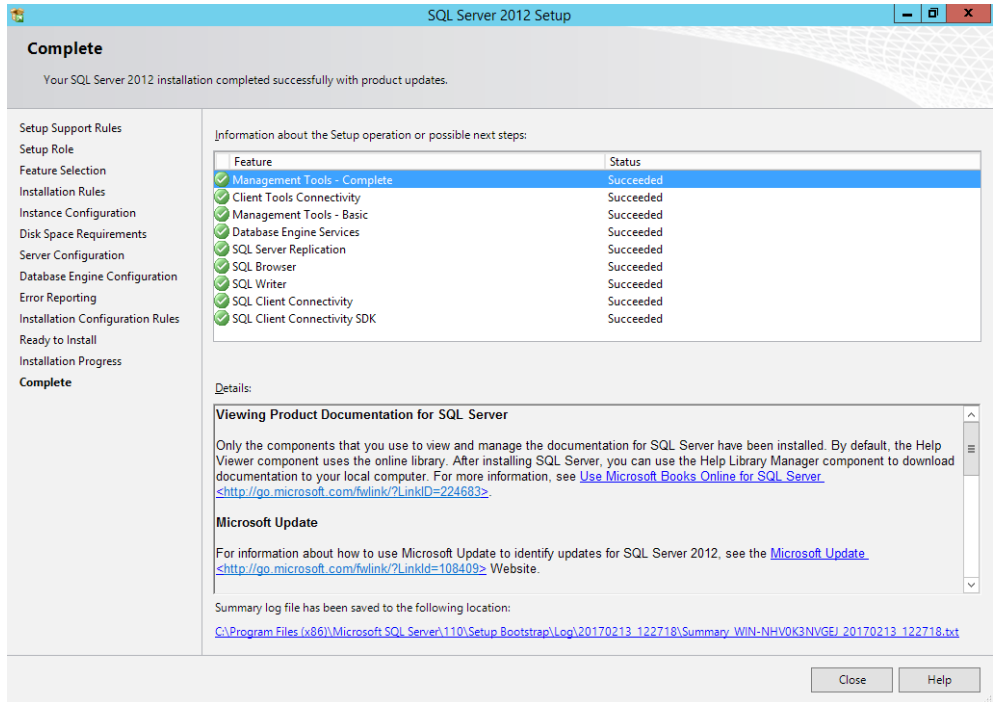


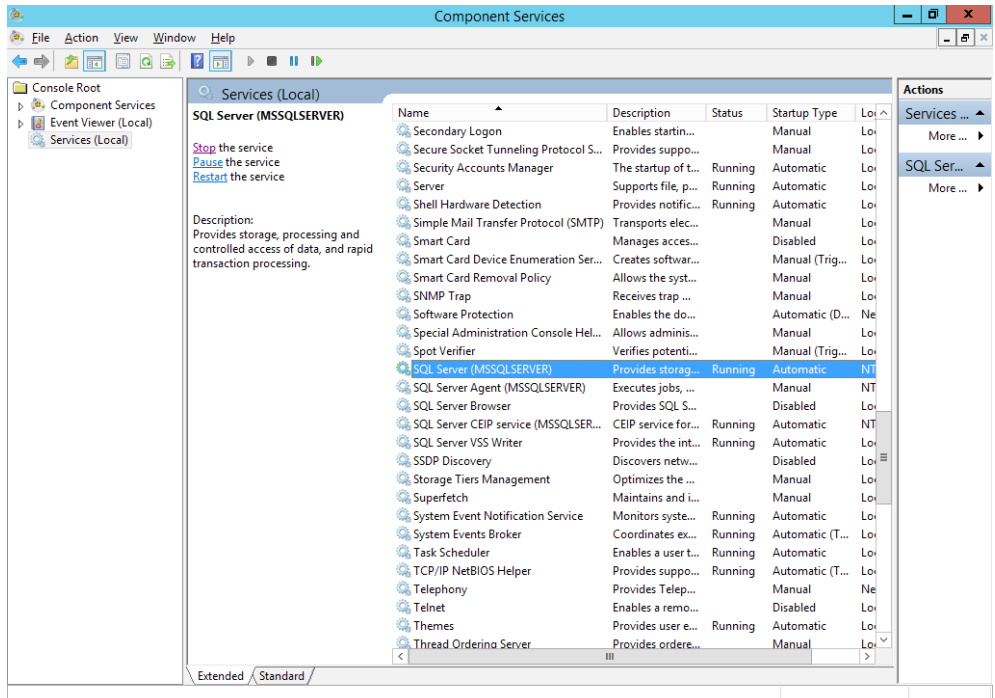
Figure 3.8.17 SQL Server Installation Complete

3.8.2 STARTING THE SQL SERVER

The SQL Server Service should already be started by the installation. If there is a need to manually start the SQL Server Service, this can be accomplished by simply rebooting the computer or you may start the Server manually as follows:

Go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL).

Perform a right click on the SQL Server (MSSQLSERVER) entry and click on “start.”



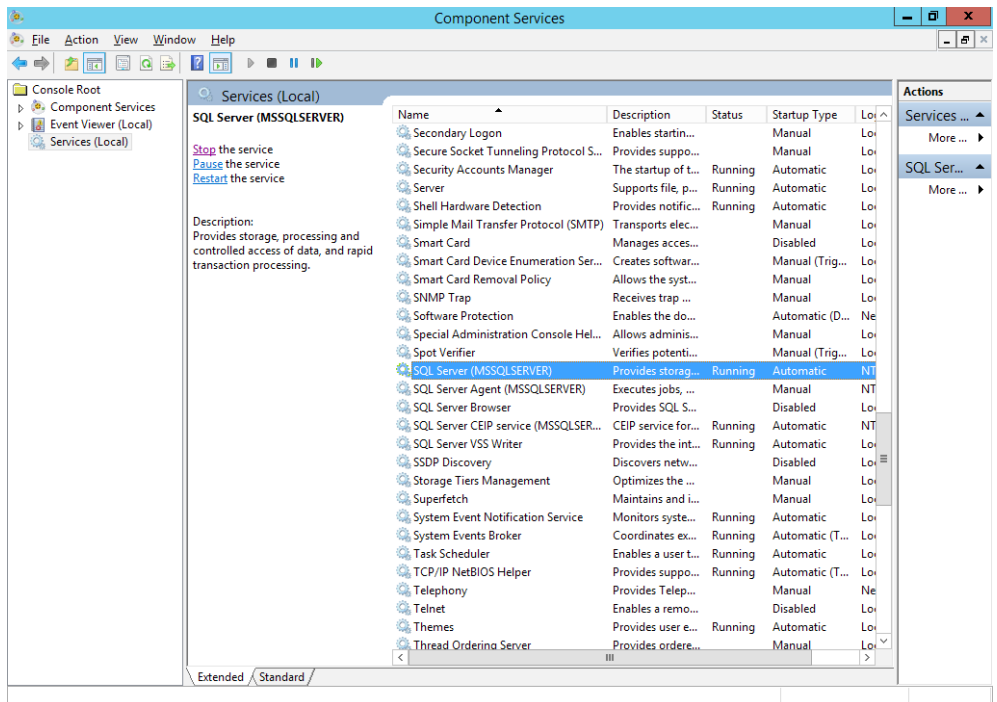


Figure 3.8.18 Manually starting the SQL Server Service

3.8.3 CONFIGURATION OF A WINDOWS ACCOUNT FOR USE WITH SQL SERVER

Now that you have successfully installed and started Microsoft SQL Server, you must create an account that will allow the RAYCHEM Supervisor Master Server to access the Microsoft SQL Server service.

To accomplish this, go to **START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPUTER MANAGEMENT » LOCAL USERS & GROUPS » USERS**.

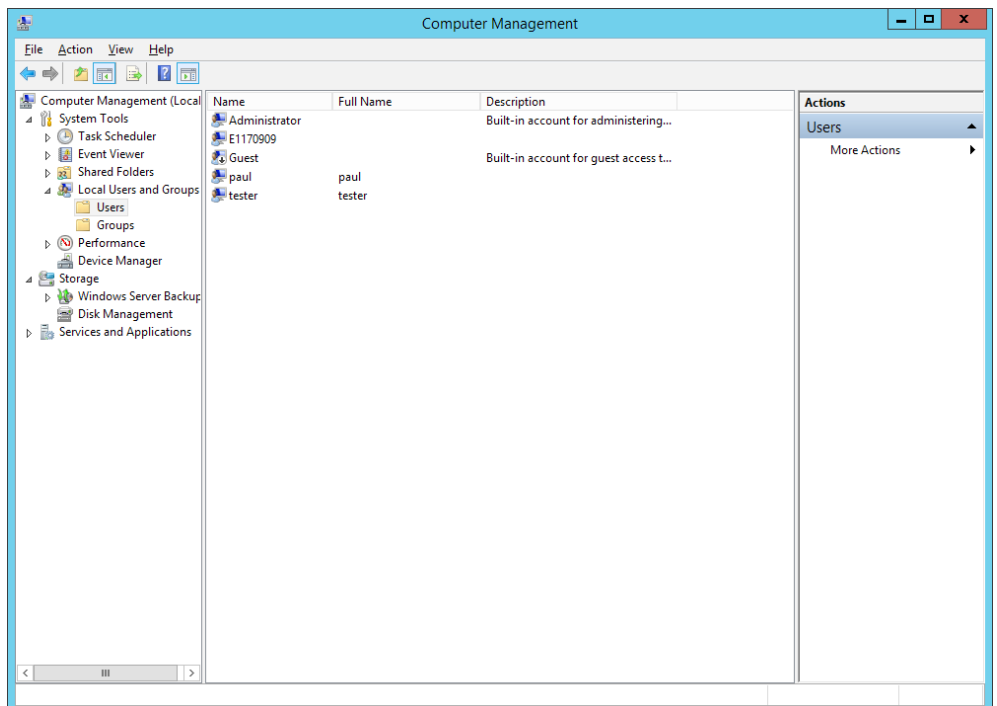


Figure 3.8.19 Current System Users

Right click in the Name area (right-hand side) of the window and click on New User. You may choose any name that you wish for the account, but a name that is representative of the account's use is recommended. For example, "RAYCHEM Master" could be used. Complete each field making specific note of the User name and Password, as these parameters will be required when setting up the Master Server Software. Click "Create" to complete the operation.

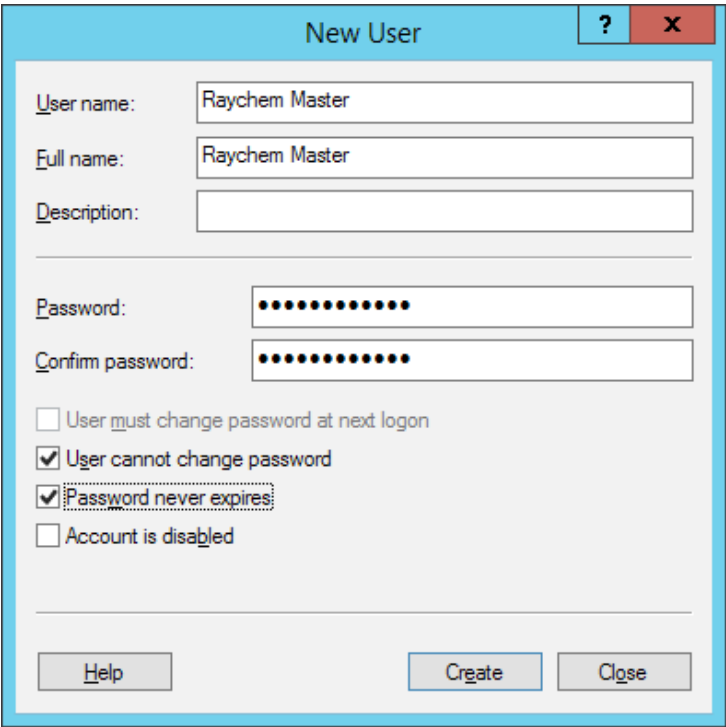


Figure 3.8.20 New user setup

Once the user has been created, it will appear in the user list. Right click on the new user name and go to Properties. Once in the Properties window, choose the General tab and ensure that User cannot change password and Password never expires are both selected.

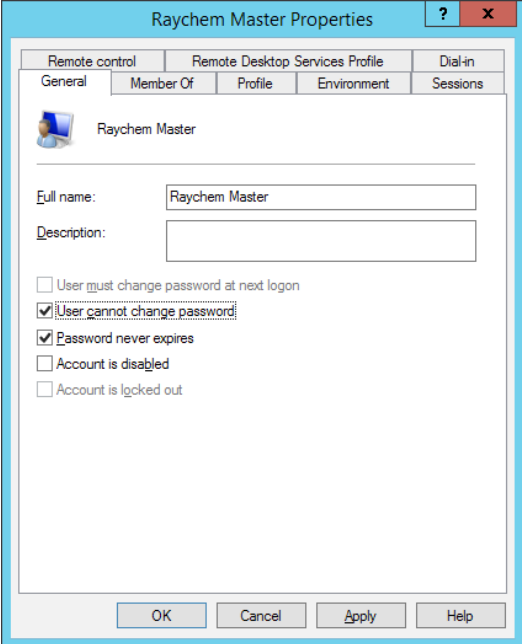


Figure 3.8.21 RAYCHEM Master User Properties

Next, choose the Member Of tab and click on the Add button.

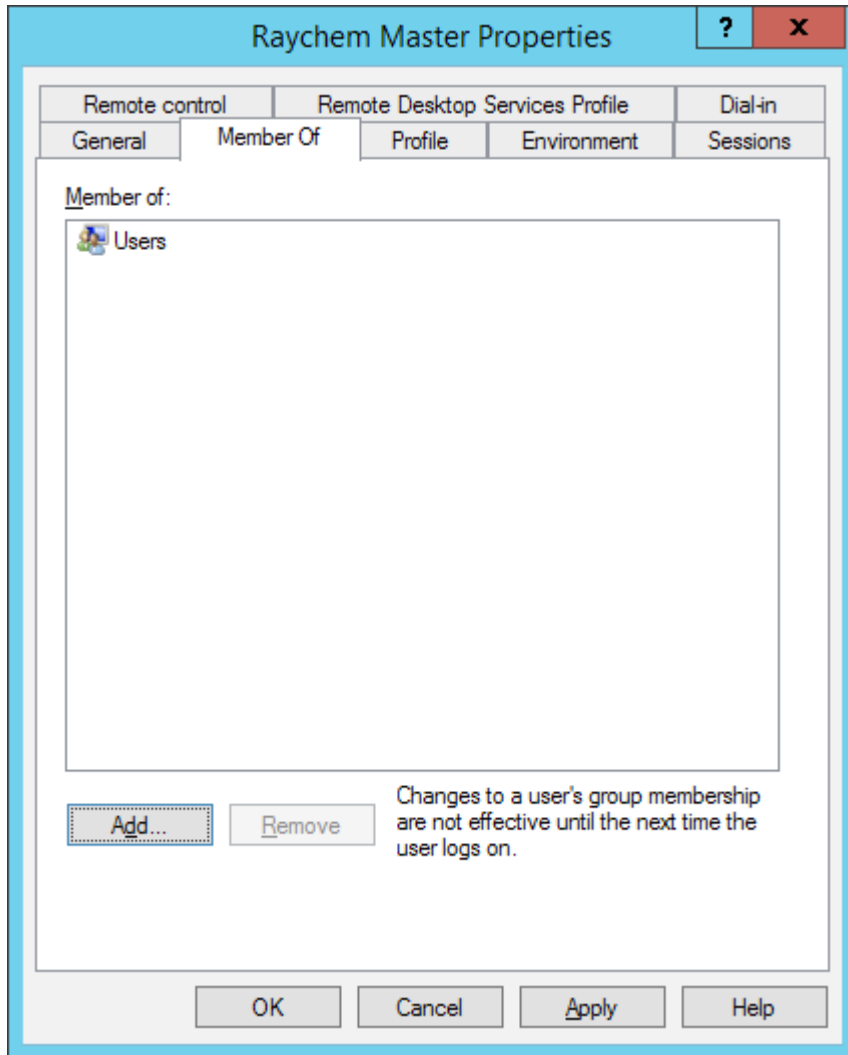


Figure 3.8.22 User group membership assignment

In the list of groups, choose Administrators and then click on "Add". This step will ensure that the RAYCHEM Master Server user will have the access it needs to interact with the SQL Server service.

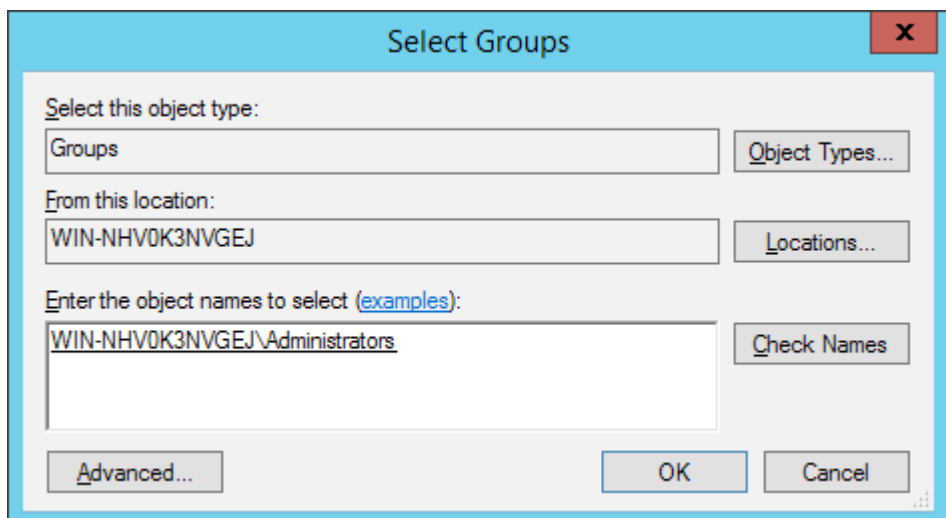


Figure 3.8.23 New User group assignment

Once the Administrators group has been added, the new user should be a member of both the Administrators and Users groups.

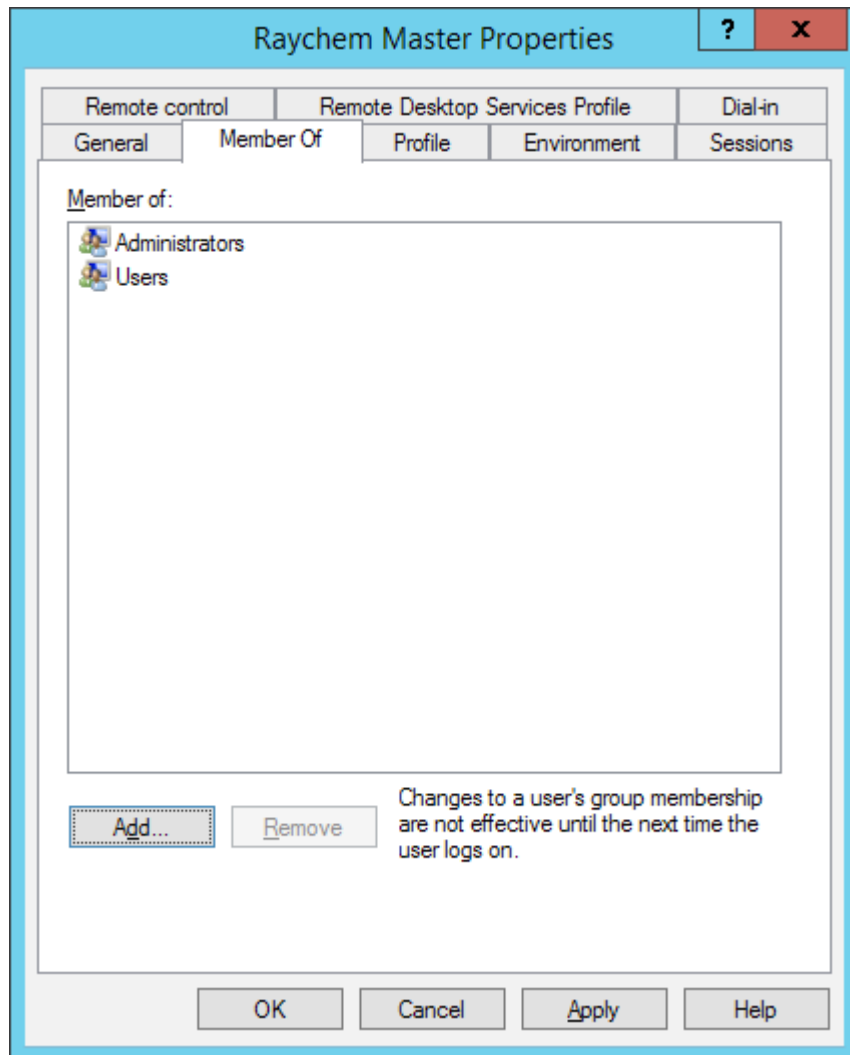


Figure 3.8.24 User membership list

Click on "Apply" and then "OK." The new user name should be added to the list.

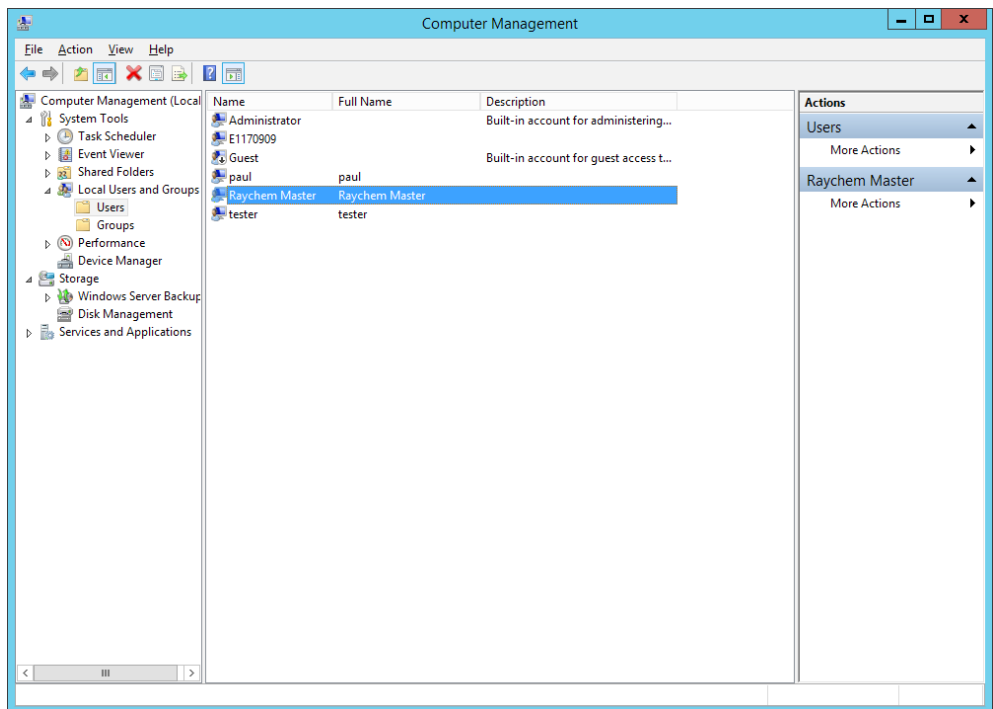


Figure 3.8.25 Addition of user 'RAYCHEM Master'

3.8.4 WINDOWS SERVER LICENSING

The computer on which SQL Server is installed must use Microsoft Windows® 2008 Server or higher as the operating system. The user is responsible for ensuring that the proper licensing following the latest requirements is obtained from Microsoft for legal use of Windows® Server and User or Device connections.

A number of options for Windows Server Client Access Licenses (CALs) are available from Microsoft. For a detailed description of the various options, see the Microsoft Website at www.microsoft.com/resources/sam/lic_cal.mspx.

Typical RAYCHEM Supervisor systems will use a mix of Device and User CALs. You will need to purchase a separate Windows Server Device CAL for each Master and Slave Server and a separate Windows Server User CAL for each user in your RAYCHEM Supervisor system.

3.9 UNINSTALLING MICROSOFT SQL SERVER 2012 TO 2019

You may remove Microsoft SQL Server from your computer system by following these steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select Microsoft SQL Server. Click on the Remove button.
4. Follow the instructions that appear on the screen.

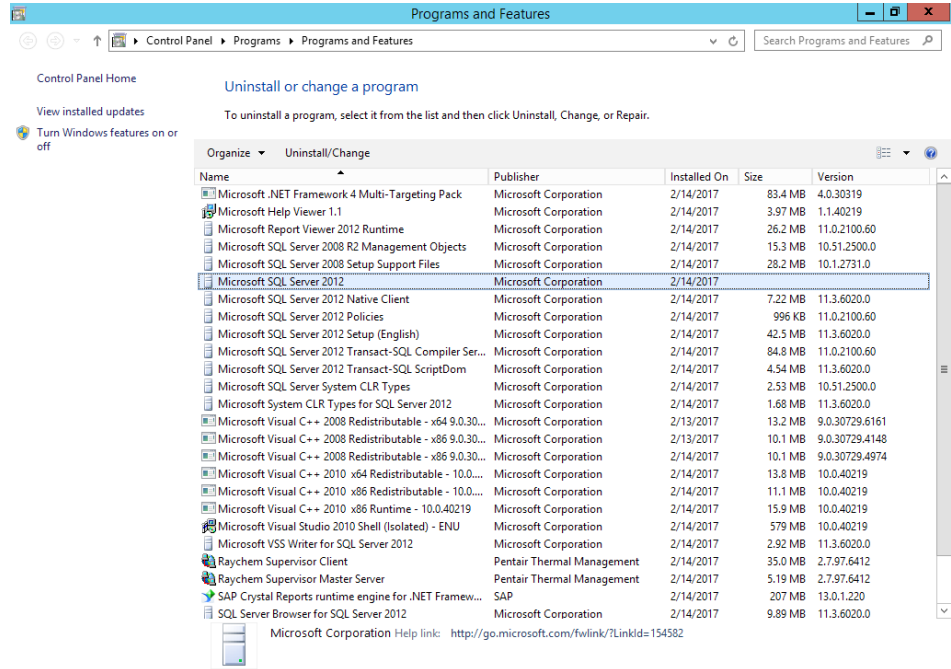


Figure 3.9.1 Remove Microsoft SQL 2012 Server

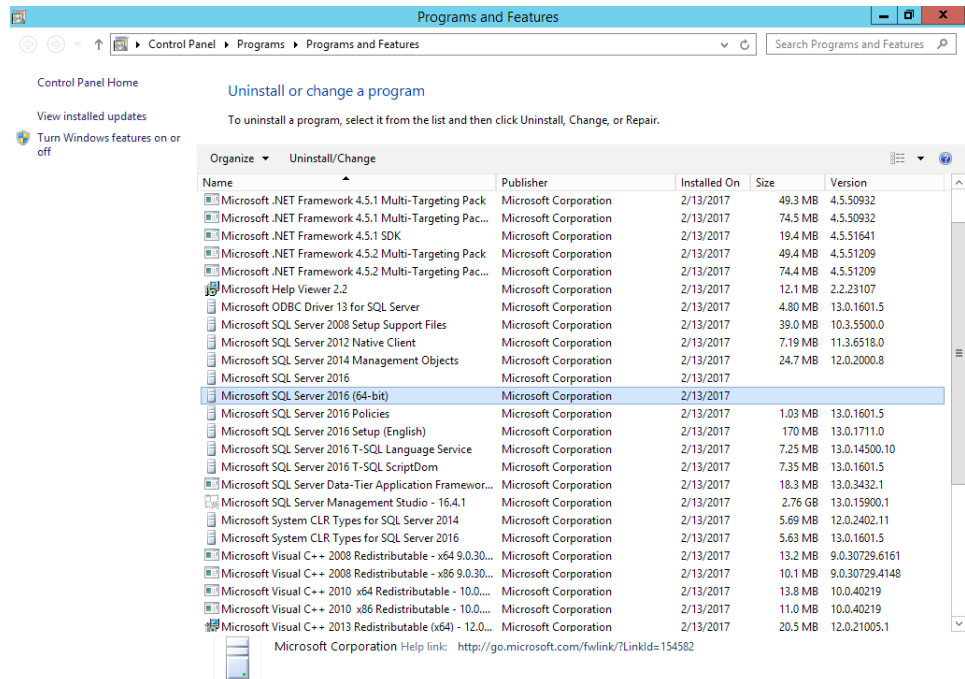



Figure 3.9.2 Remove Microsoft SQL 2016 Server

3.10 INSTALLING RAYCHEM SUPERVISOR

The installation program will start up the Installation Wizard, which will guide you through the installation process. You are required to read and accept the Software License Agreement. Once you read and agree with the license agreement, click the Yes button and the installation will continue. If you do not agree with the license agreement, click No and the installation will terminate.

 **Note:** The following Sections assume that you have already installed a database application (either SQL EXPRESS or SQL Server) on the same computer as the one where the RAYCHEM Supervisor Master Server software will be installed. If you have not yet completed this step, refer to Sections 3.2, 3.4, 3.6, or 3.8 for additional information on how to do this.

3.10.1 INSTALLING RAYCHEM SUPERVISOR MASTER SERVER

To start the RAYCHEM Master Server installation, insert the “RAYCHEM Supervisor Disk 1 – Application and Utilities” CD (SQL versions) into the PC’s CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorMasterServerSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

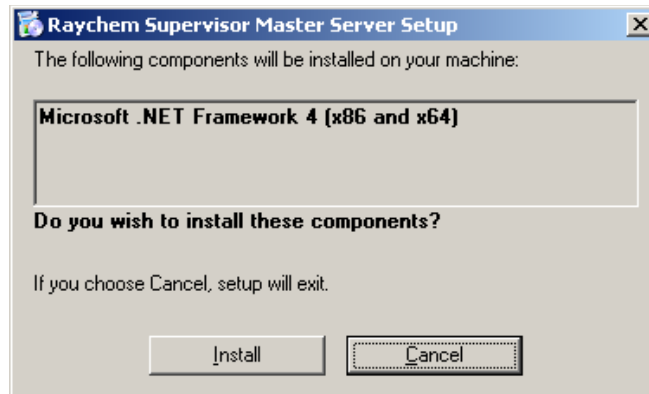


Figure 3.10.1 Setup screen showing missing components to be installed

If there are no missing components the “Welcome to the RAYCHEM Supervisor Master Server Setup Wizard” screen will appear. Click on “Next” to continue to the License Agreement.

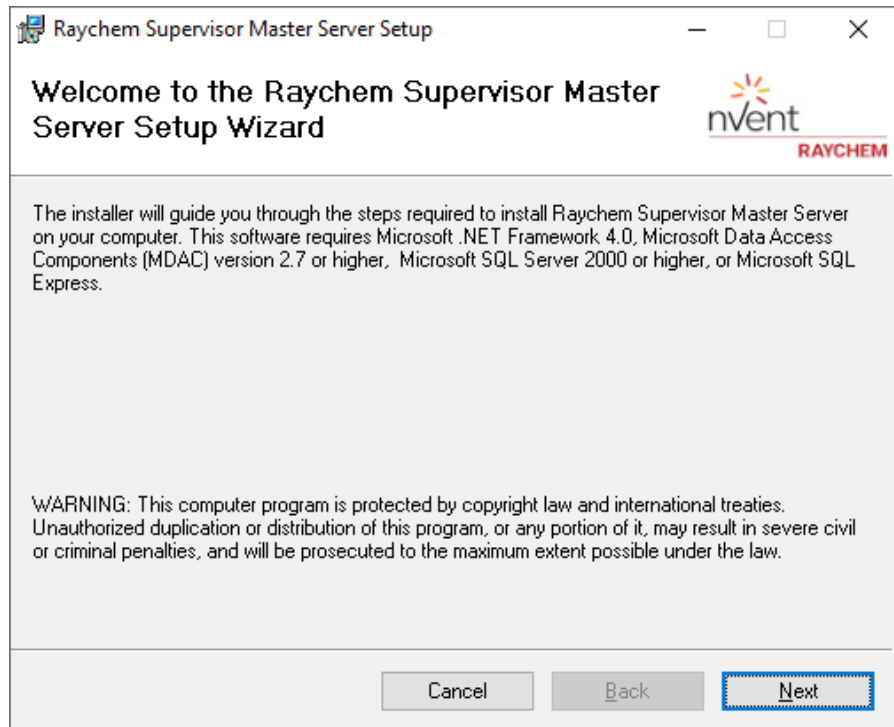


Figure 3.10.2 Welcome screen for RAYCHEM Supervisor Master Server installation

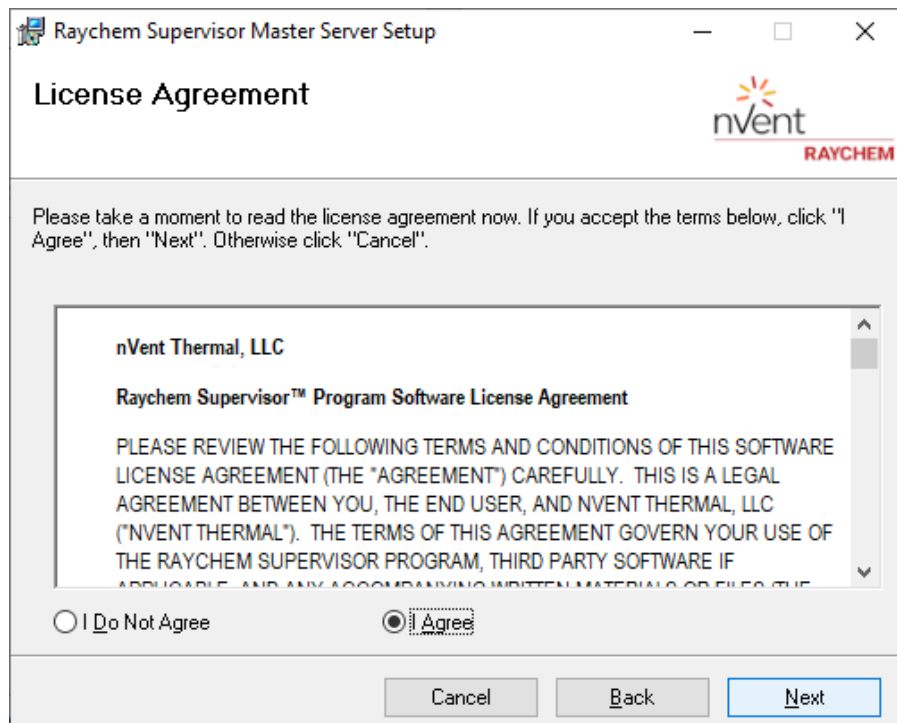


Figure 3.10.3 License Agreement for RAYCHEM Supervisor Master Server

Continue with the next few screens until the Installation complete screen. At this point, the RAYCHEM Supervisor Master Server software is already installed in your computer, however the next step is to associate the SQL Server that will be used by the RAYCHEM Supervisor Master Server. The RAYCHEM Supervisor Master Server Configuration Utility will guide you from this point on.

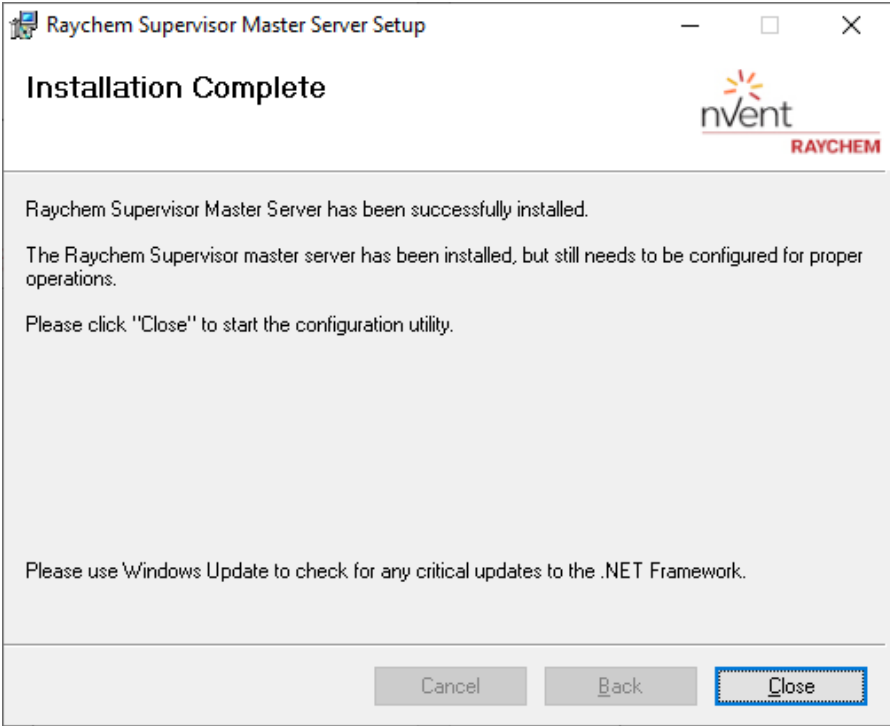


Figure 3.10.4 RAYCHEM Supervisor Master Server Installation Complete

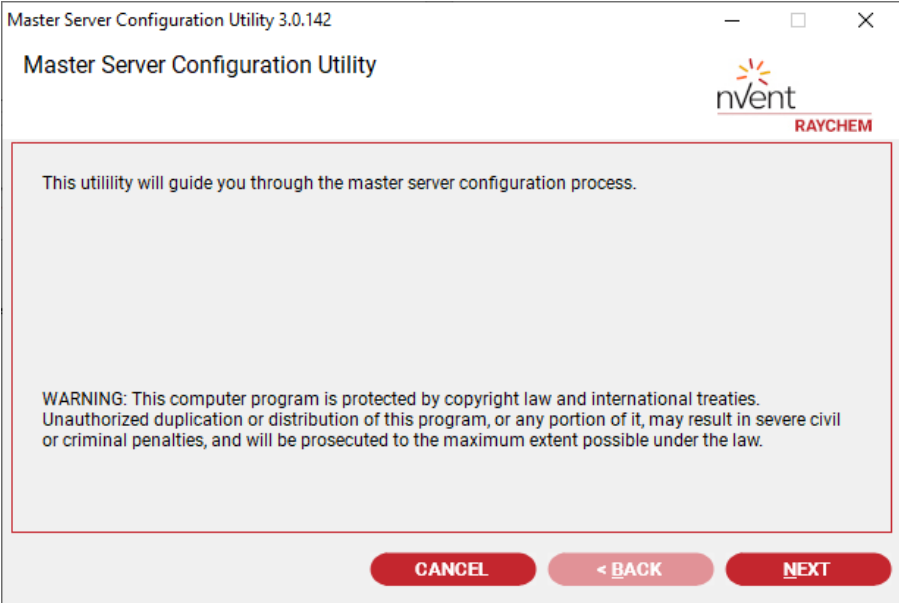


Figure 3.10.5 RAYCHEM Supervisor Master Server Configuration Utility

You will be prompted to enter a Database Server Name – enter the name that was defined during the database installation process (see Figures 3-2-6, 3-4-5 or 3-6-6). If you did not enter a specific database Instance name as instructed, then the name will simply be the Master Server computer name. If you do not recall your computer name, you can find it by performing a right click on My Computer and going to Properties. Once the window opens, click on the Computer Name tab.

Once you know your Computer Name enter it into the Database Server Name field and click on “Next.” (Refer to Figure 3.8.6)

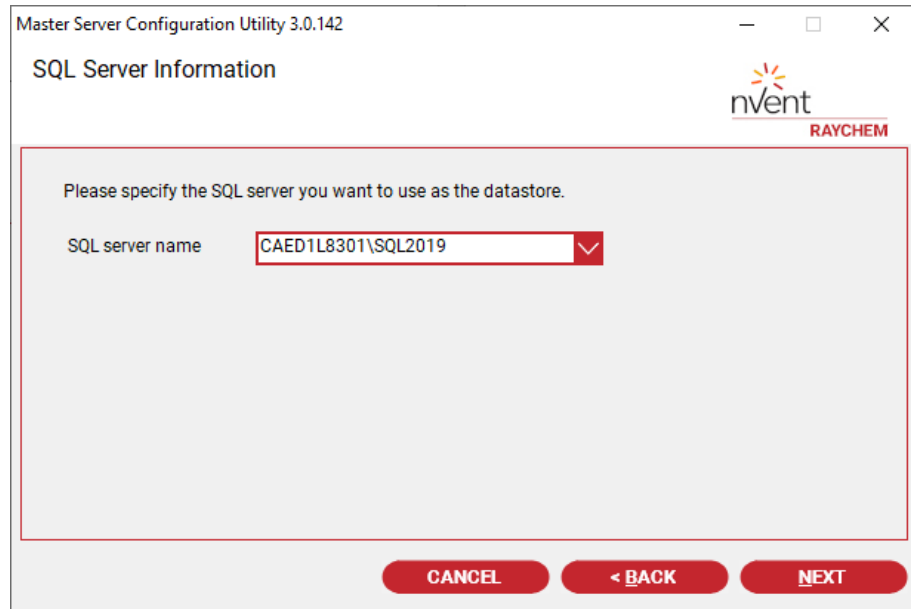


Figure 3.10.6 RAYCHEM Supervisor database server information screen

If you are installing over an existing RAYCHEM Supervisor installation, you will be prompted to choose an Existing System Database option, otherwise the Confirm Configuration screen will be displayed.

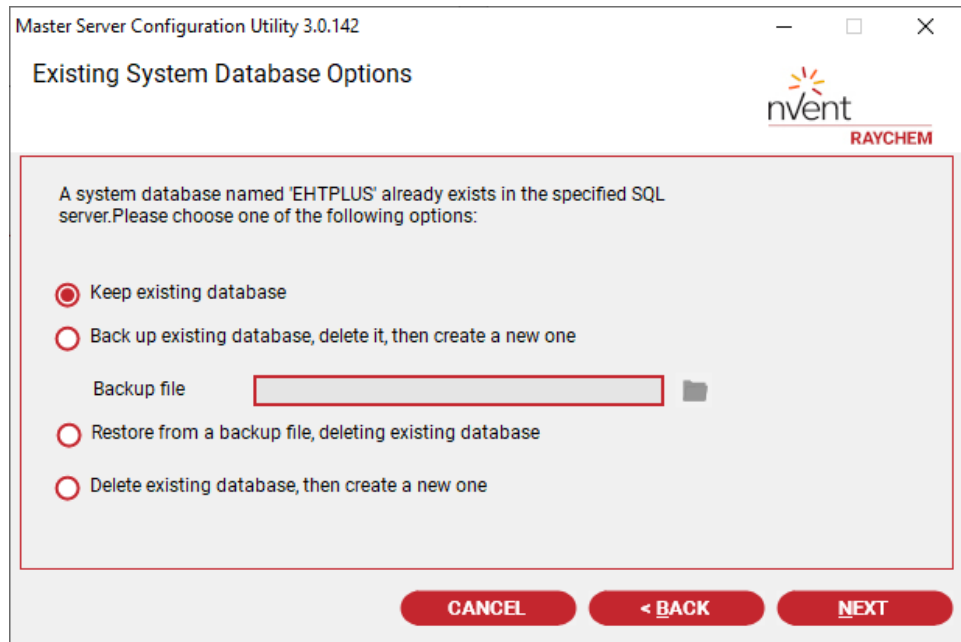


Figure 3.10.7 Select an Existing System Database Option screen

There are network specific options that can affect the operations of the Raychem Supervisor Master Server, therefore select the options that are appropriate for your application. Click “Next” to continue.

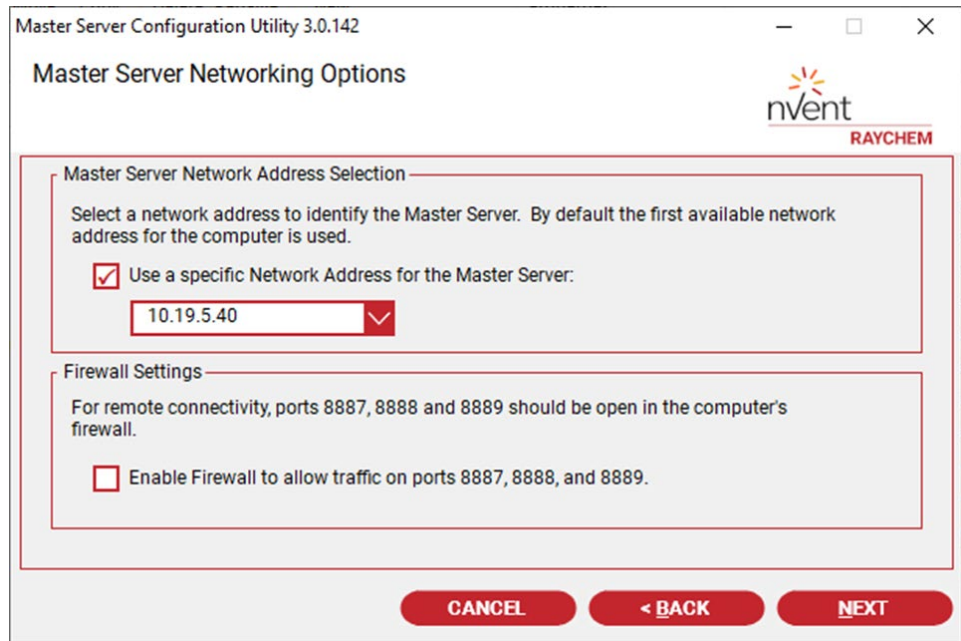


Figure 3.10.8 Master Server Networking Options

If there are errors encountered during the installation, please refer to section Appendix – B Troubleshooting on how to correct the problem, otherwise the installation Complete screen is displayed. Make sure the checkbox for the “Restart RAYCHEM Supervisor Master Server for the new configuration to take effect” is checked, then click “Close” to exit the installation.

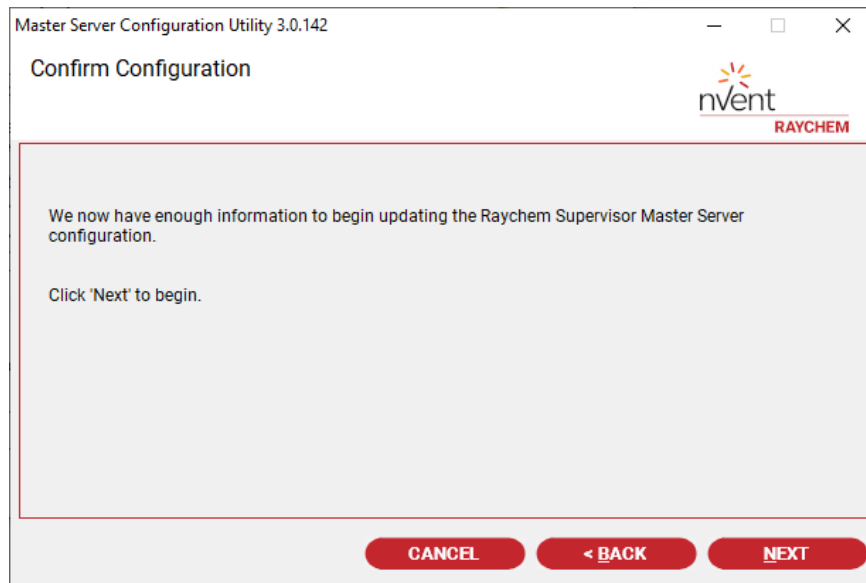


Figure 3.10.9 Confirm Configuration

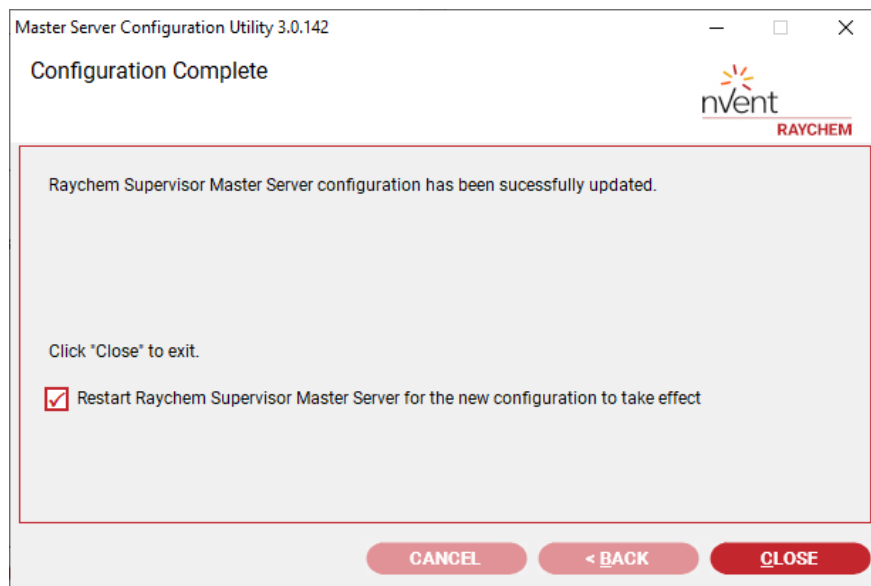


Figure 3.10.10 Installation Complete Screen

3.10.2 CONFIGURING THE MASTER SERVER SOFTWARE

After installing the Master Server Software, perform the following steps to configure the Master Server:

For SQL Server-based installations perform the following additional steps:

You must configure the Master Service to automatically log in to Windows Server. To do this, go to START » SETTINGS » CONTROL PANEL » ADMINISTRATIVE TOOLS » COMPONENT SERVICES » SERVICES (LOCAL) » RAYCHEM SUPERVISOR MASTER SERVER SERVICE.

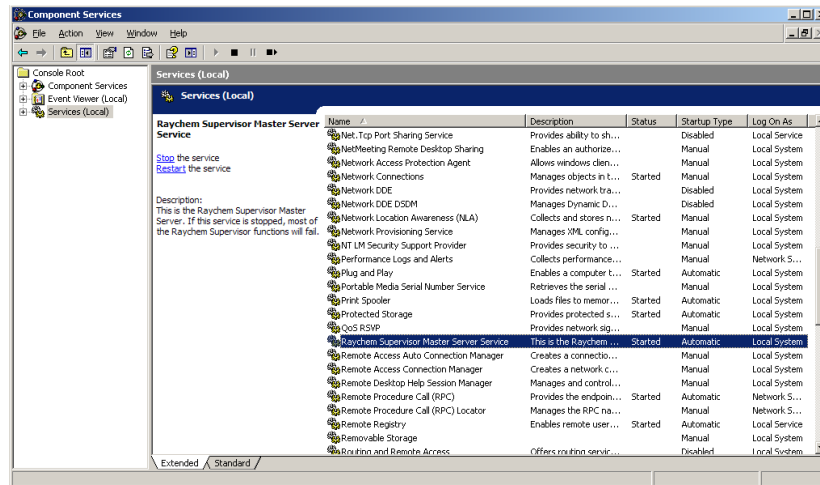


Figure 3.10.11 Configure the Master Server

Right click on RAYCHEM Supervisor Master Server Services and select Properties. Once in the Properties window, choose the Log On tab. Select Log On as: and This account. Click on the "Browse" button and choose the new user account that was created in Section 3.6.3. Enter the same password that you used when the account was created.



Note: You must re-enter the password into both the Password and the Confirm Password fields. Click on "Apply" and then "OK."

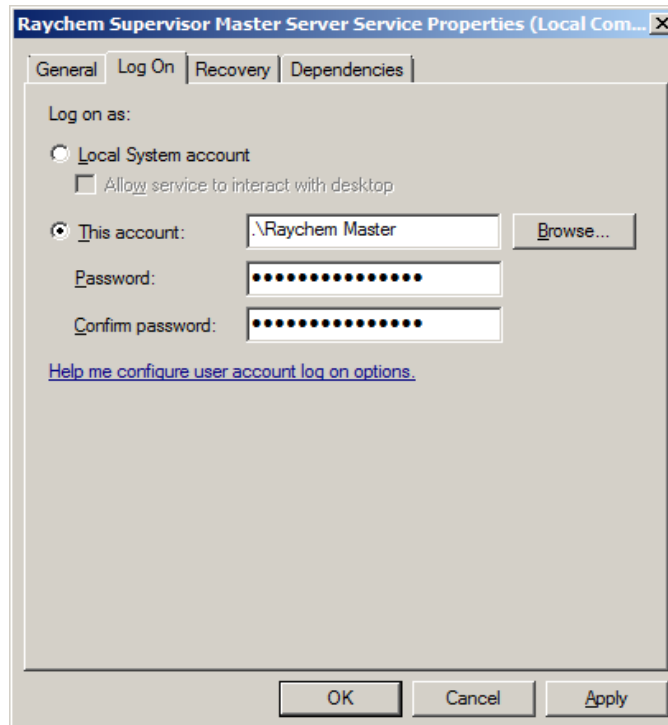


Figure 3.10.12 Set the log on account

If successful, you will be granted access to the Windows Server.

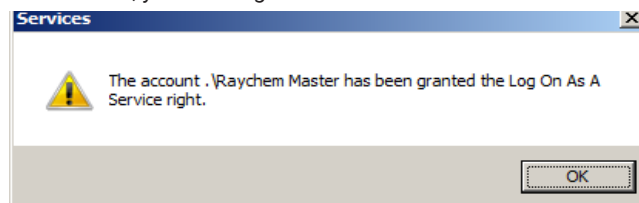



Figure 3.10.13 Access granted to the Windows Server

3.10.3 CONFIGURING MICROSOFT SQL 2000 WITH THE MASTER SERVER

SQL Server 2000 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER » ENTERPRISE MANAGER » MICROSOFT SQL SERVERS » SQL SERVER GROUP » MASTERSVR-SQL1 » DATABASES » EHTPLUS » USERS.

 **Note:** In the example above, the Database Server name is “MASTERSVR-SQL1”. In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.2, Figure 3-2-6).

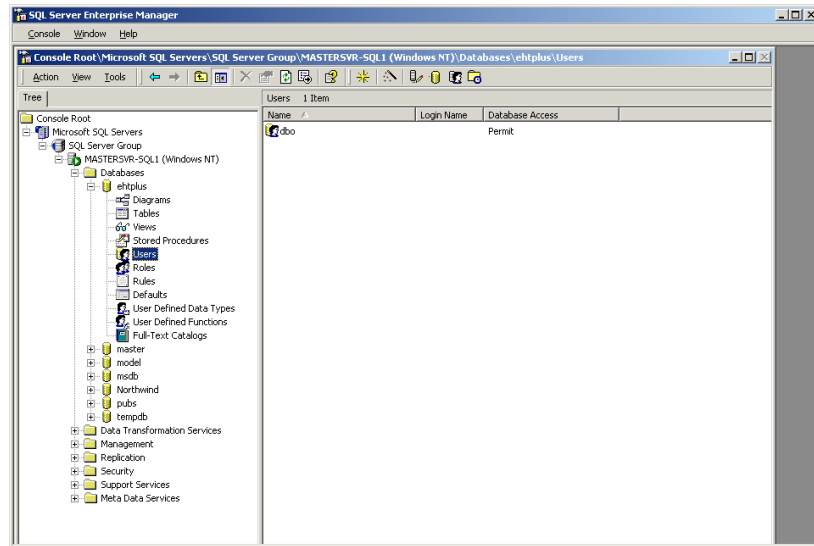


Figure 3.10.14 Database users

Right Click on the right hand side of the screen and choose New Database User. In the Database User Properties window, choose the Login name that was created in Section 3.2 (see Figure 3.2.6). If the name does not appear in the list, click on “<new>” to add it.

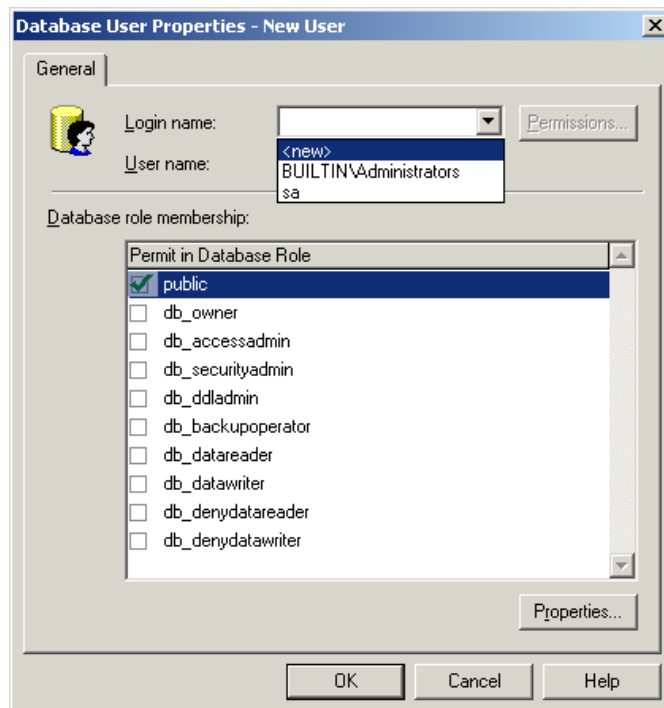


Figure 3.10.15 Select the database user

In the SQL Server Login Properties – New Login window, click on the “...” button to browse and pick the user name that was previously created in Section 3.2 (Figure 3-2-6). Click “Add” and then “OK.”

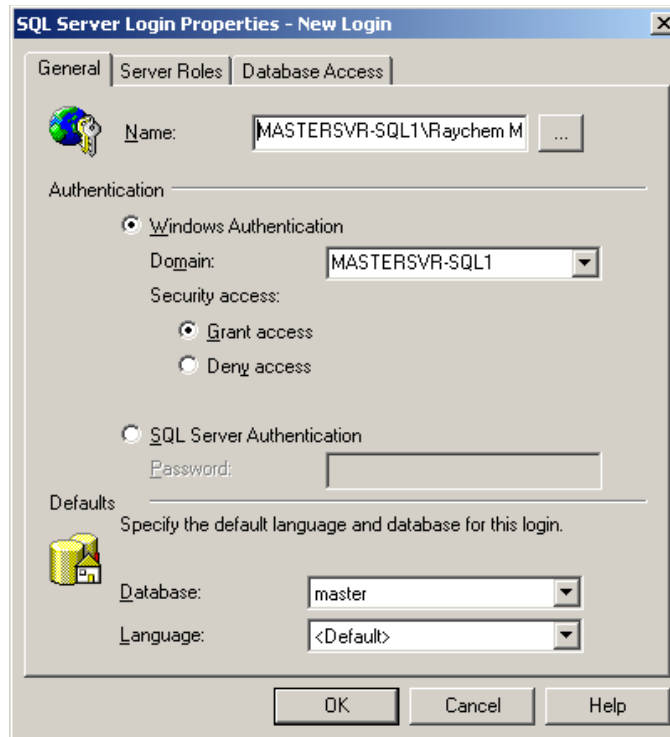


Figure 3.10.16 Add a new database user

The Authentication and Defaults fields will automatically be populated with the appropriate information once the new user has been added. Do not modify these settings. Click "OK" to accept.

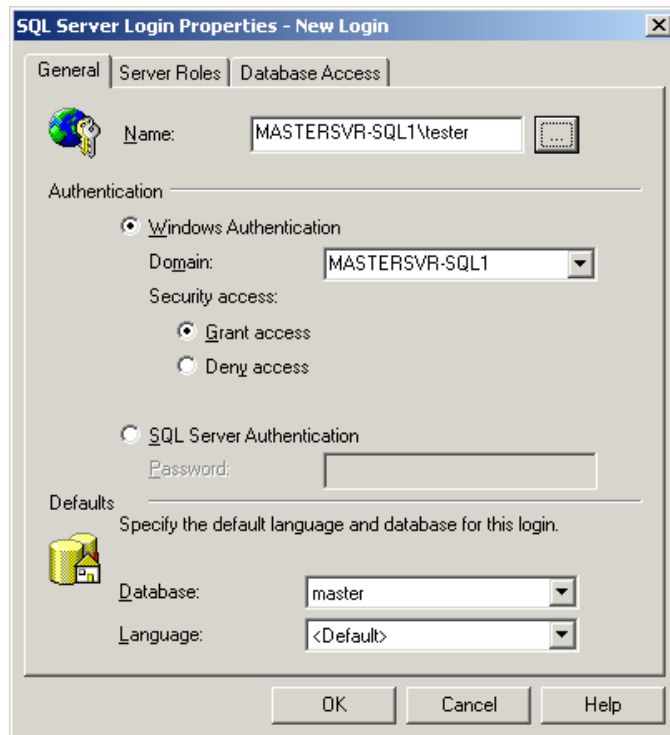


Figure 3.10.17 Add new database user

After the Login name has been chosen, ensure that both the public and db_owner selections are enabled in the Database role membership area. Then click "OK."

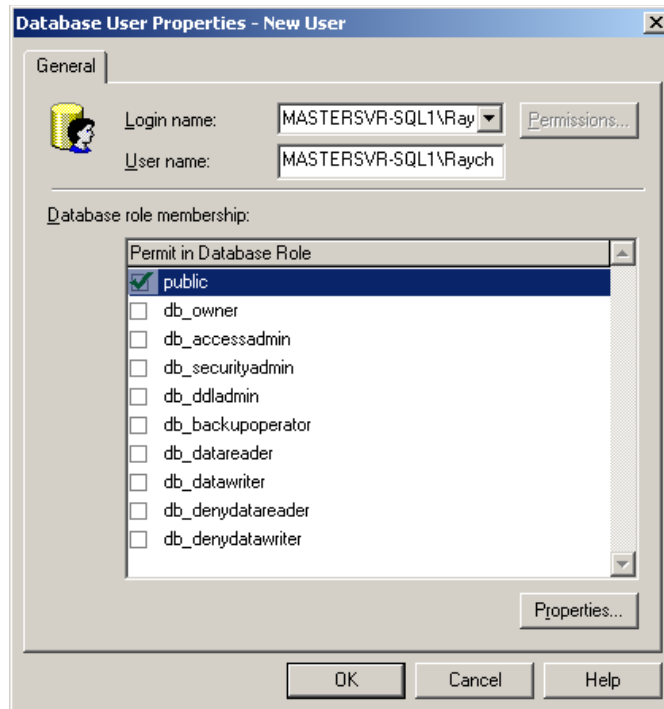


Figure 3.10.18 Set database role

The SQL Server Enterprise Manager should now show the RAYCHEM Master Server as a database user.

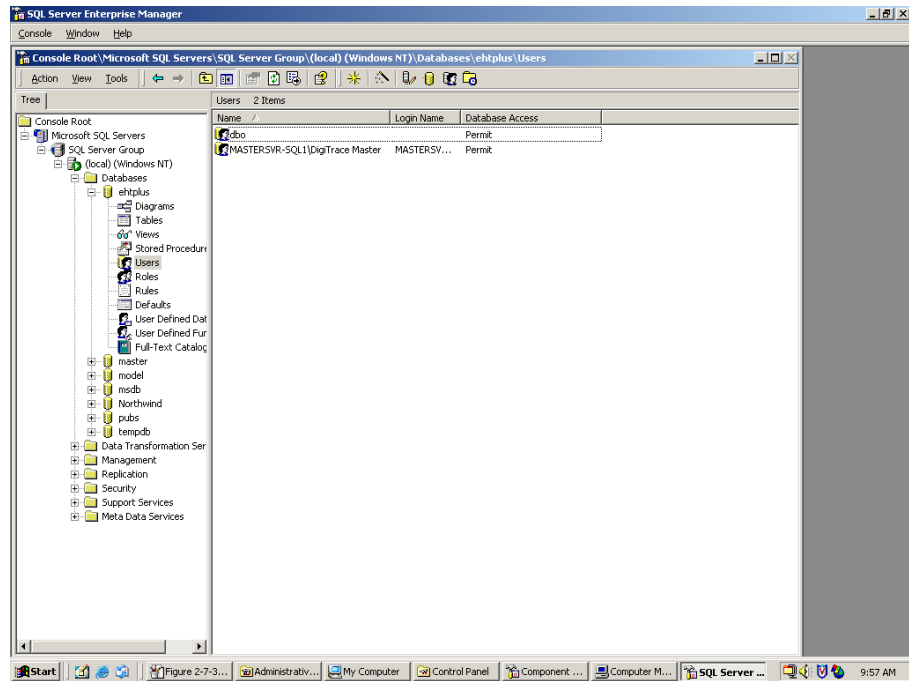


Figure 3.10.19 New database user created

Close the SQL Server Enterprise Manager window.


3.10.4 CONFIGURING MICROSOFT SQL 2005 WITH THE MASTER SERVER

SQL Server 2005 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2005 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.



Figure 3.10.20 Connect to Server

Once the connection is successful navigate to WINSERVER2003 » DATABASES » EHTPLUS » SECURITY » LOGINS.

 **Note:** In the example above, the Database Server name is “WINSERVER2003”. In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.4, Figure 3-4-5).

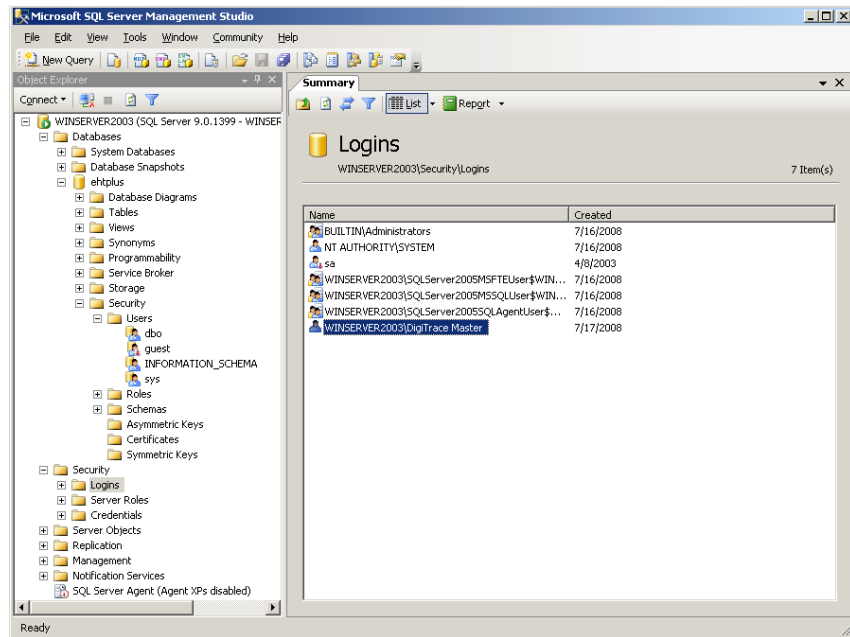


Figure 3.10.21 Microsoft SQL Server Management Studio Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.6.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click “OK” to accept.

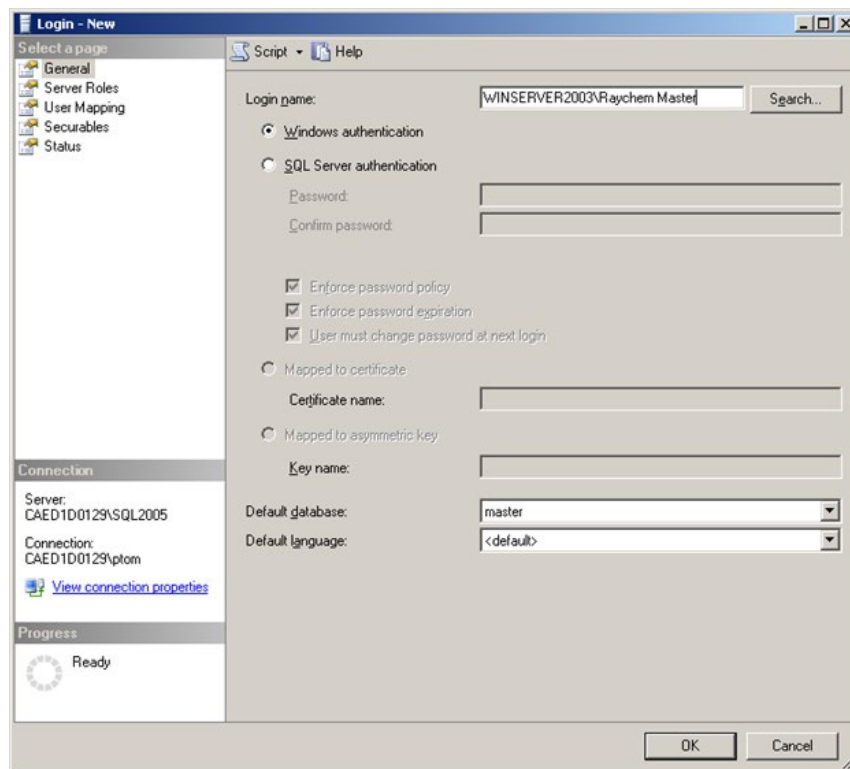


Figure 3.10.22 New Login

After you've successfully added the new Login, navigate to WINSERVER2003 » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name “RAYCHEM Master” for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click “OK” to save the new user.

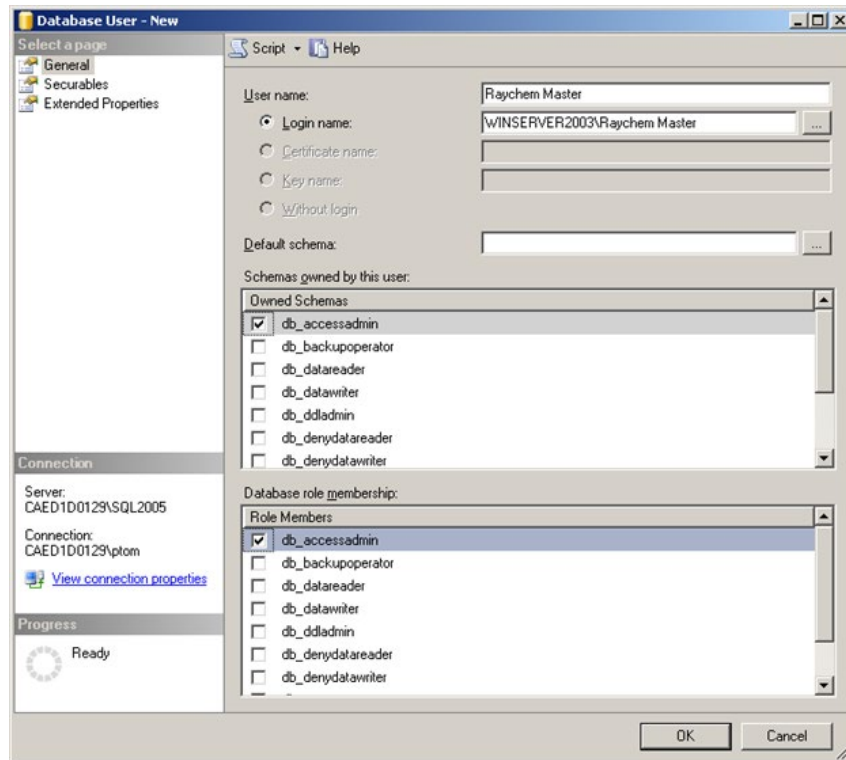


Figure 3.10.23 Add a new database user

After you successfully added the new user, it will appear in the Users screen.

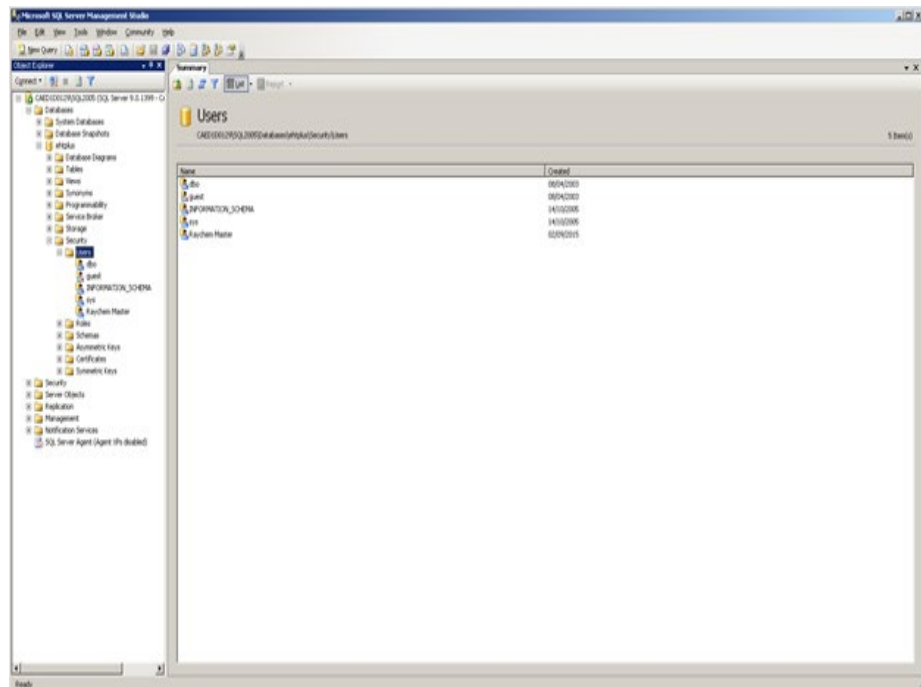


Figure 3.10.24 Users

You can now close the Microsoft SQL Server Management Studio.

3.10.5 CONFIGURING MICROSOFT SQL 2008 WITH THE MASTER SERVER

SQL Server 2008 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2008 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.

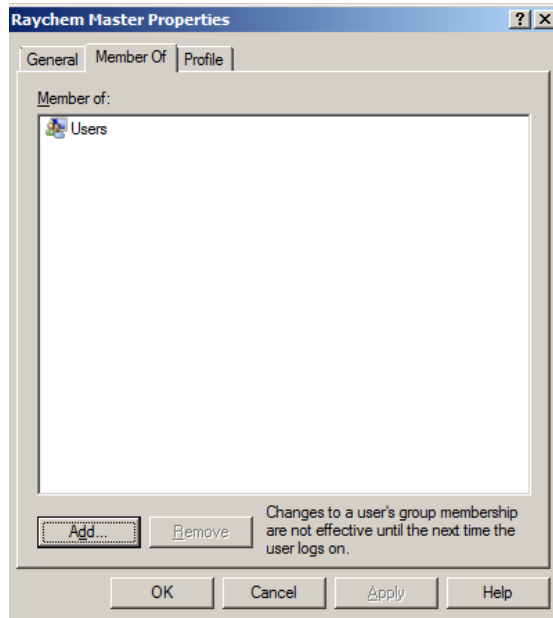


Figure 3.10.25 Connect to Server

Once the connection is successful navigate to WIN-432TYFQNQKB » DATABASES » EHTPLUS » LOGINS.



Note: In the example above, the Database Server name is “WIN-432TYFQNQKB”. In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.6, Figure 3-6-6).

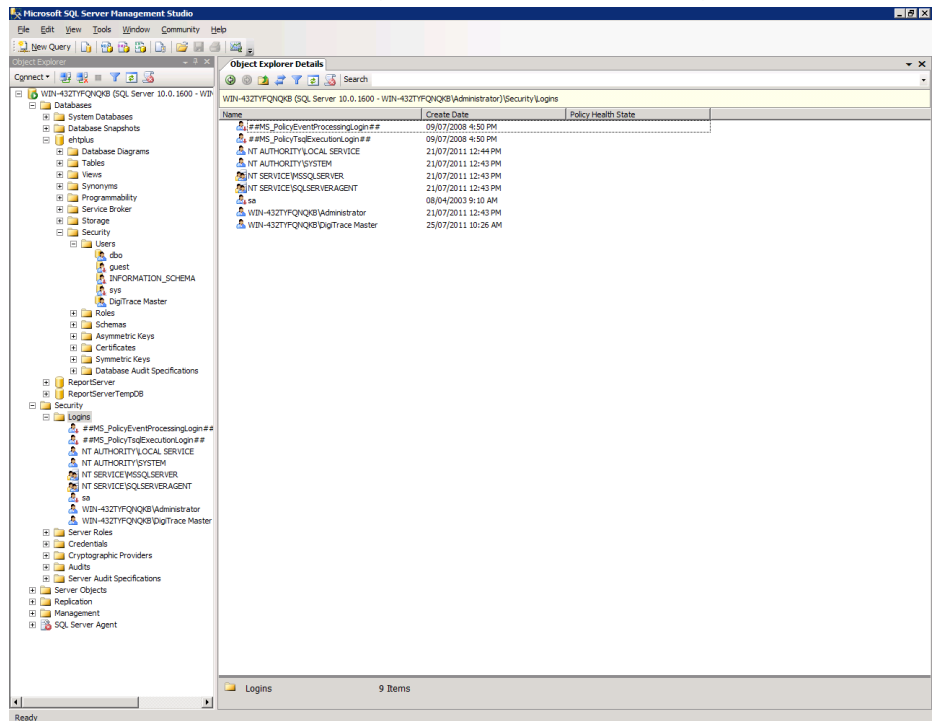


Figure 3.10.26 Microsoft SQL Server Management Studio Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.6.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click "OK" to accept.

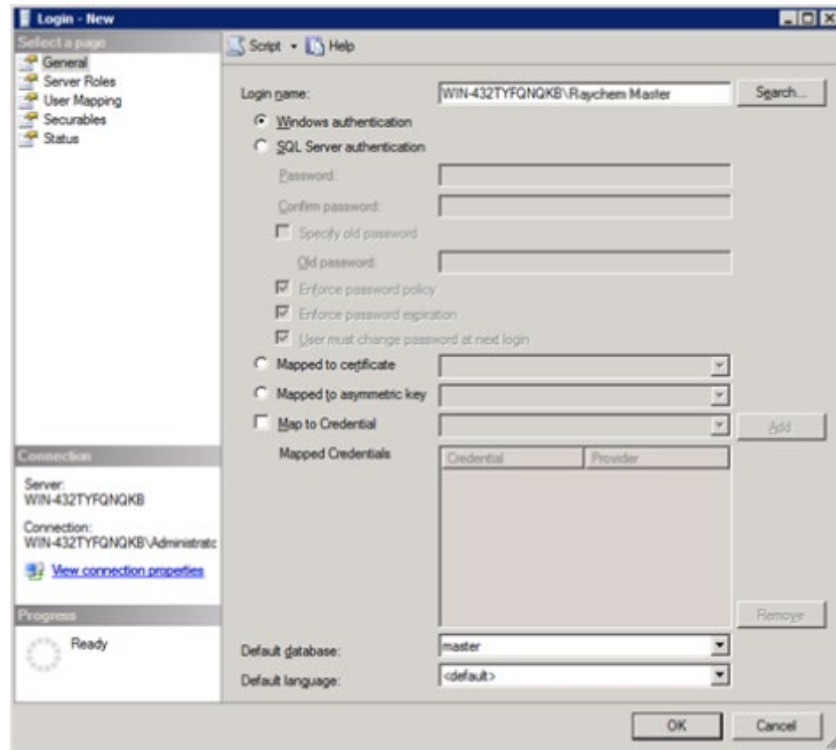


Figure 3.10.27 New Login

After you've successfully added the new Login, navigate to WIN-432TYFQNGKB » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name "RAYCHEM Master" for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click "OK" to save the new user.

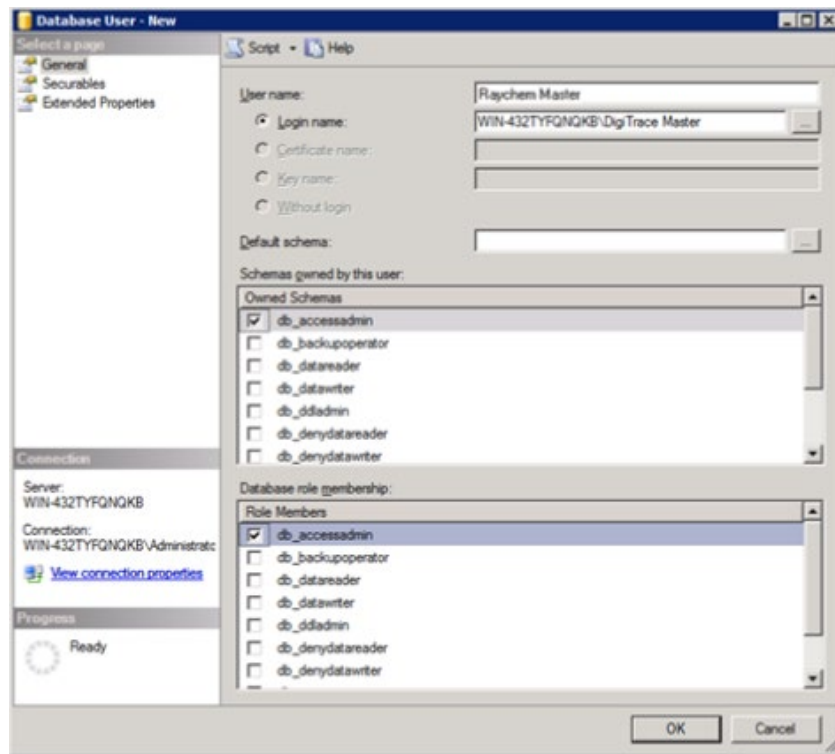


Figure 3.10.28 Add a new database user

After you successfully added the new user, it will appear in the Users screen.

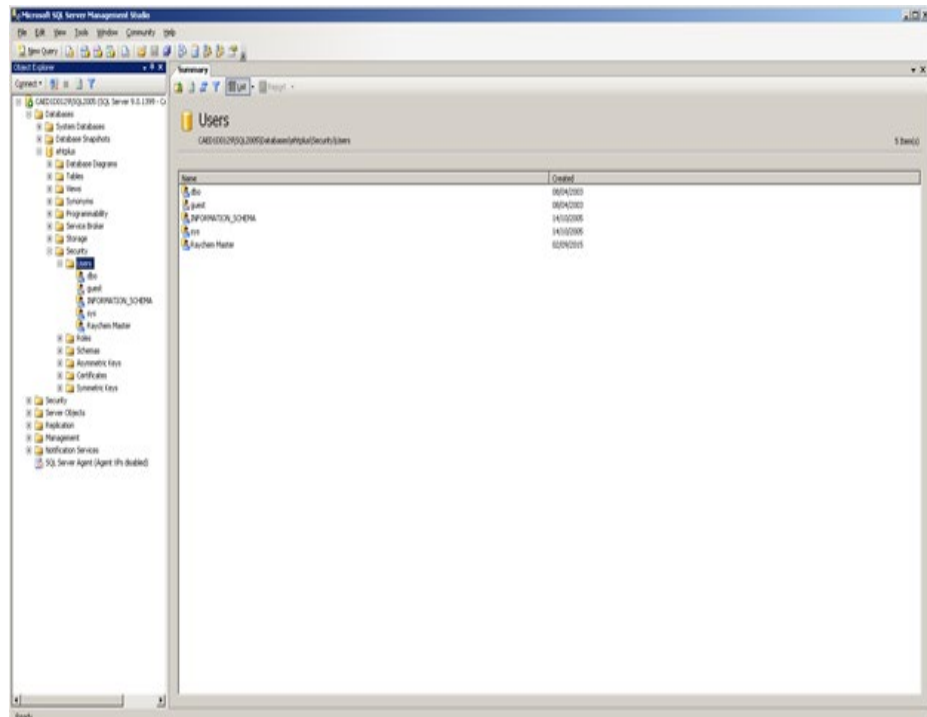


Figure 3.10.29 Users

You can now close the Microsoft SQL Server Management Studio.

3.10.6 CONFIGURING MICROSOFT SQL 2012, 2014, 2016 WITH THE MASTER SERVER

SQL Server 2012, 2014, Or 2016 must be configured to allow the Master Server to connect to it. Do this by clicking on START » PROGRAMS » MICROSOFT SQL SERVER 2012/2014/2016 » SQL SERVER MANAGEMENT STUDIO. You will be prompted to login to the SQL database Server.

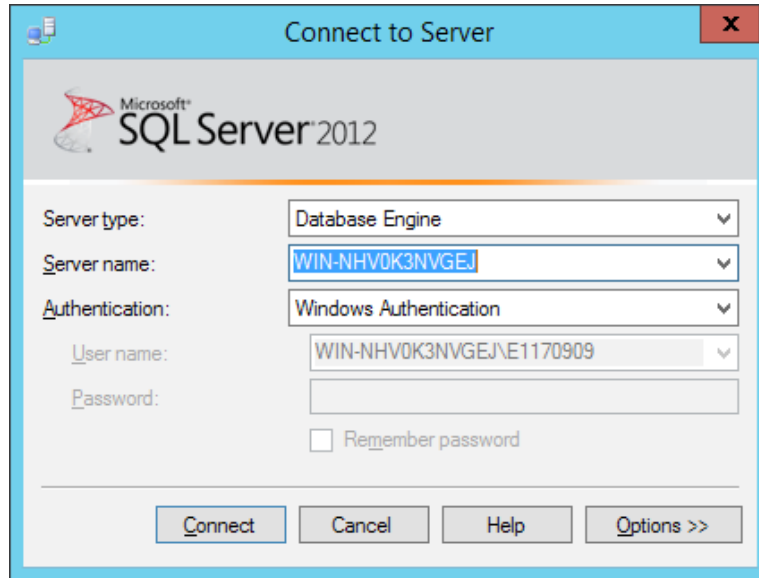


Figure 3.10.30 Connect to SQL Server in SQL Server Management Studio



Important: RAYCHEM Supervisor Master Server must be installed before you can configure the Supervisor database. The name of the Supervisor database is EHTPlus.

Once the connection is successful navigate to WIN-NHVOK3NVGEJ » DATABASES » EHTPLUS » LOGINS. Use the View pull down menu and select Object Explorer Details or F7 to show the object details.



IMPORTANT: In the example above, the Database Server name is “WIN-NHVOK3NVGEJ”. In your application, this will be replaced by the Database Server name that was assigned during the database server installation process (refer to Section 3.8, Figure 3-8-10).

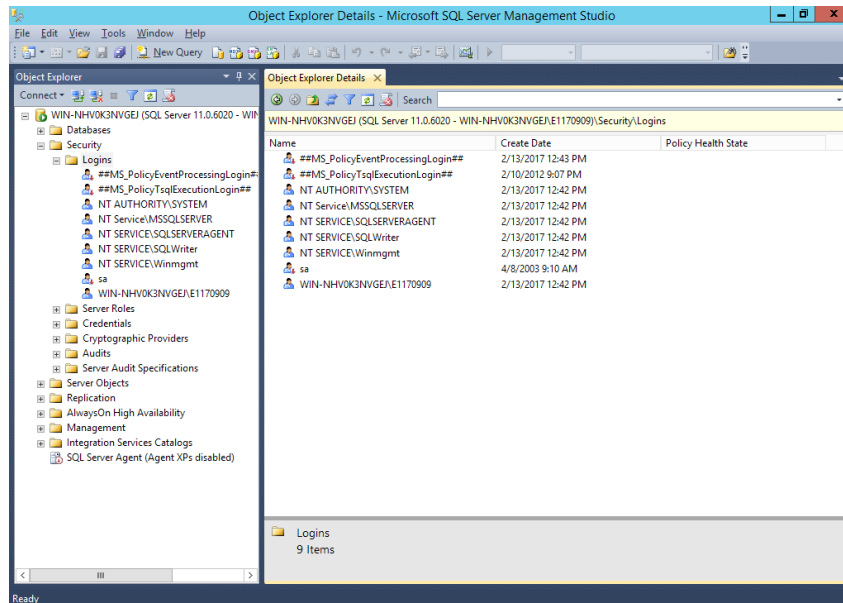


Figure 3.10.31 Microsoft SQL Server Management Studio User Logins

Right Click on the right hand side of the screen and choose New Logins. Enter the name that was previously created in section 3.8.3 (i.e. RAYCHEM Master). The Authentication and Defaults fields will automatically be populated with the appropriate information once the new login has been added. Do not modify these settings. Click "OK" to accept.

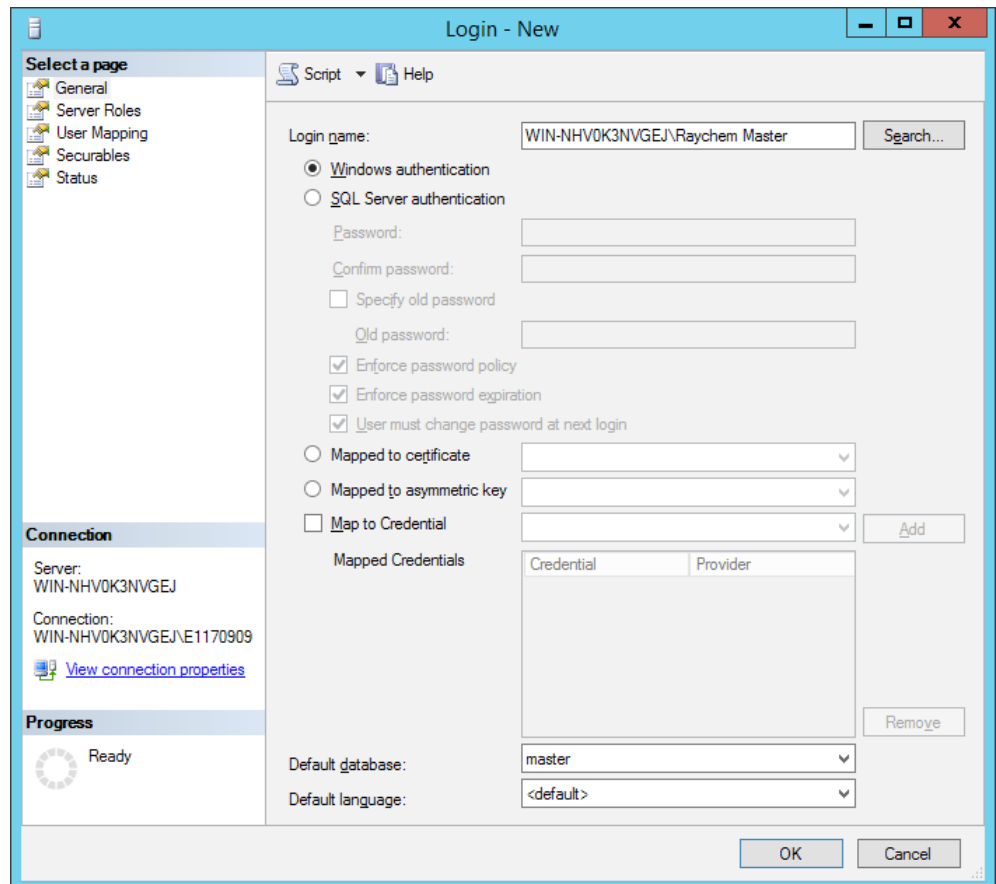


Figure 3.10.32 Adding a New Login to SQL Server

After you've successfully added the new Login, navigate to WIN-NHV0K3NVGEJ » DATABASES » EHTPLUS » SECURITY » USERS and add a new user. Enter a new user name such as RAYCHEM Master and use the browse button to select the previously created Login name "RAYCHEM Master" for the Login name field. Select db_accessadmin and db_owner for both Owned Schemas and Role Members field. Click "OK" to save the new user.

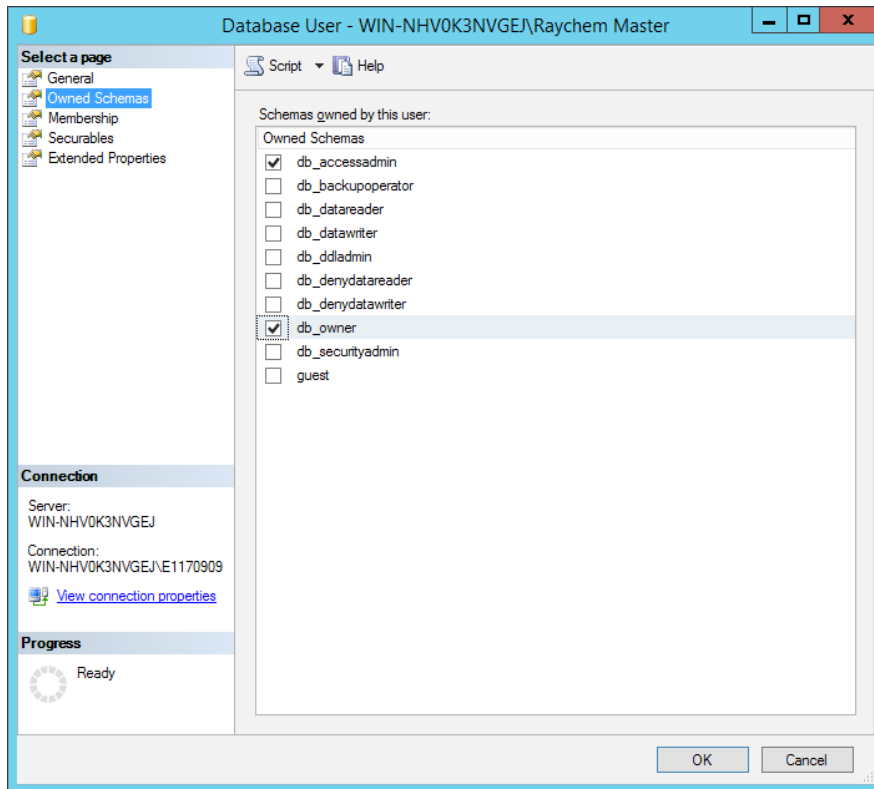


Figure 3.10.33 Setting the Owned Schema for the new login user for EHTPlus database
After you successfully added the new user, it will appear in the Users screen.

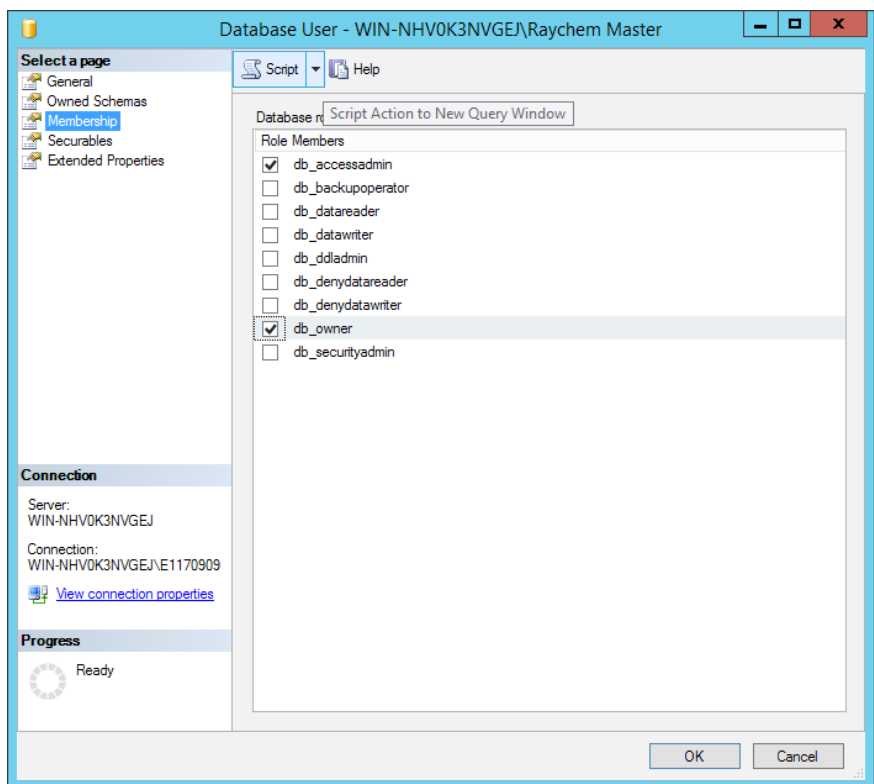


Figure 3.10.34 Setting the Database roles for the new login user for EHTPlus database
You can now close the Microsoft SQL Server Management Studio.

3.10.7 STARTING THE RAYCHEM Supervisor MASTER SERVER SERVICE

The RAYCHEM Supervisor Master Server service must now be started. This can be accomplished by either of the methods described in Section 3.2.2, 3.4.2, or 3.6.2 .

3.10.8 INSTALLING THE RAYCHEM SUPERVISOR SLAVE SERVER

To start the RAYCHEM Slave Server installation, insert the “RAYCHEM Supervisor Disk 1 – Application and Utilities” CD (SQL versions) into the PC’s CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorSlaveServerSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are some required components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

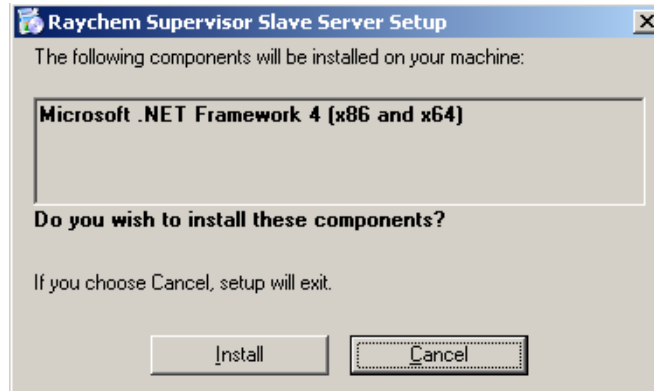


Figure 3.10.35 Setup screen showing missing components to be installed

If there are no missing components the “Welcome to the RAYCHEM Supervisor Slave Server Setup Wizard” screen will appear. Click on “Next” to continue to the License Agreement.

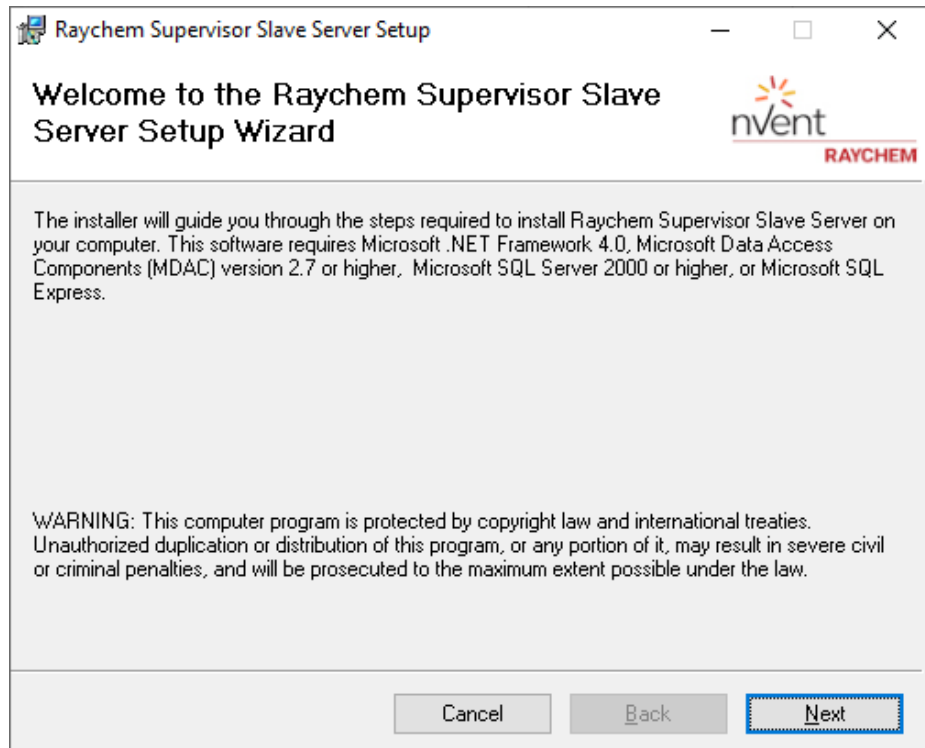


Figure 3.10.36 Welcome screen for RAYCHEM Supervisor Slave Server installation

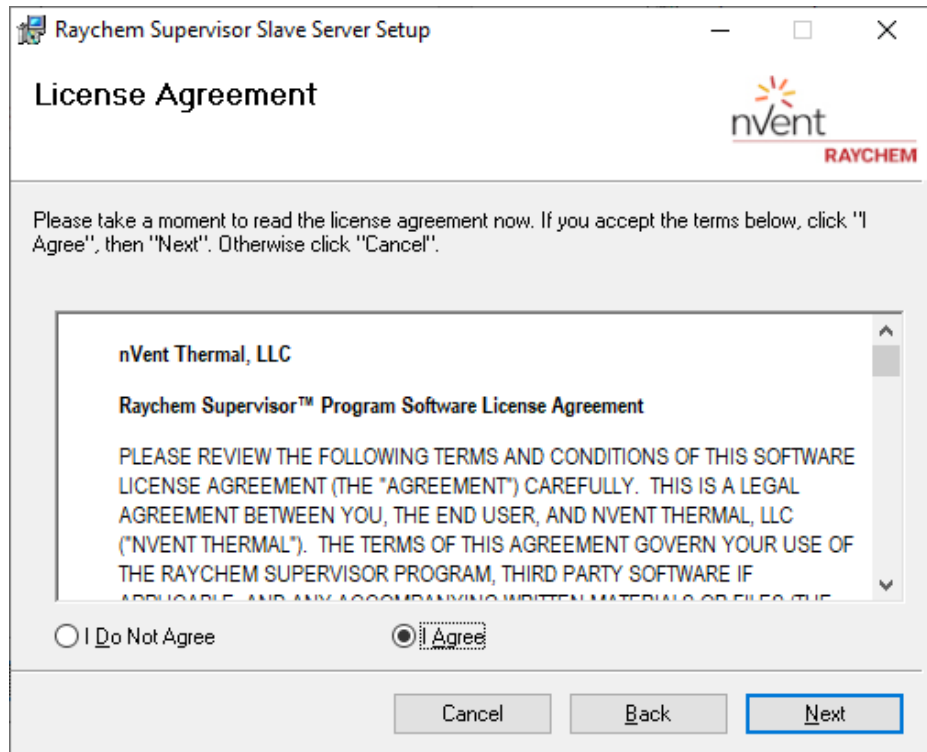


Figure 3.10.37 License Agreement for RAYCHEM Supervisor Slave Server

Continue with the next few screens until the Installation complete screen.

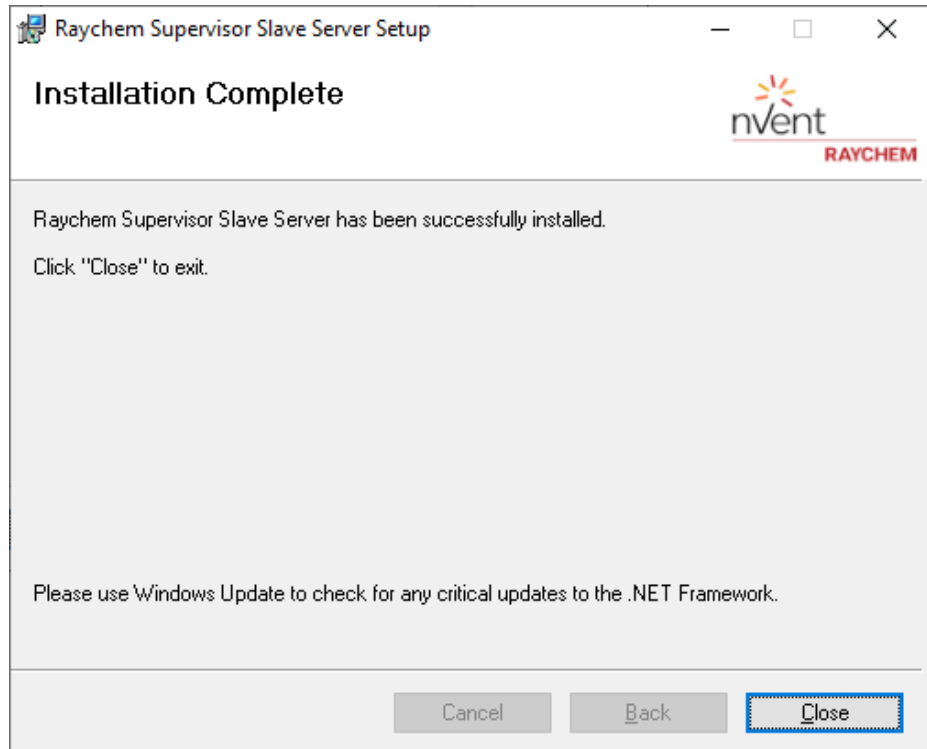


Figure 3.10.38 RAYCHEM Supervisor Slave Server Installation Completed

3.10.9 STARTING THE RAYCHEM Supervisor SLAVE SERVER SERVICE

The RAYCHEM Supervisor Slave Server service should now be started. If for some reason it is not, please follow the methods described in Section 3.2.2, 3.4.2, or 3.6.2 . The Windows Services are listed in the Services Applet, under Control Panel->Administrative Tools\Component Services.

3.10.10 INSTALLING RAYCHEM SUPERVISOR CLIENT

To start the RAYCHEM Client installation, insert the “RAYCHEM Supervisor Disk 1 – Application and Utilities” CD (SQL versions) into the PC’s CD-Rom drive. Navigate to the Installation folder and double click on the RAYCHEM SupervisorClientSetup.exe file. The installation begins by checking the computer for software components that are required to run RAYCHEM Supervisor. If there are some required components missing, it will install them for you. You may be asked to reboot your computer during the installation of those components, please select Yes to reboot.

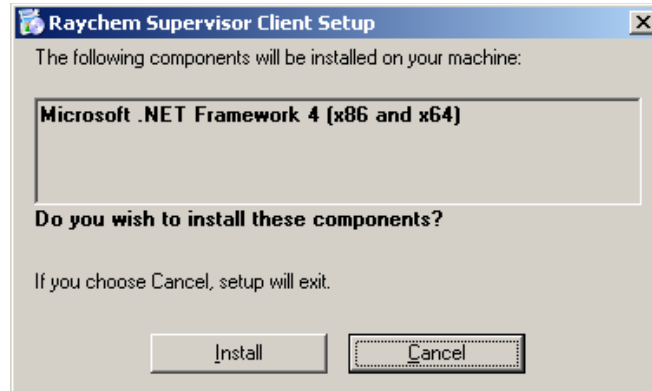


Figure 3.10.39 Setup screen showing missing components to be installed

If there are no missing components the “Welcome to the RAYCHEM Supervisor Client Setup Wizard” screen will appear. Click on “Next” to continue.

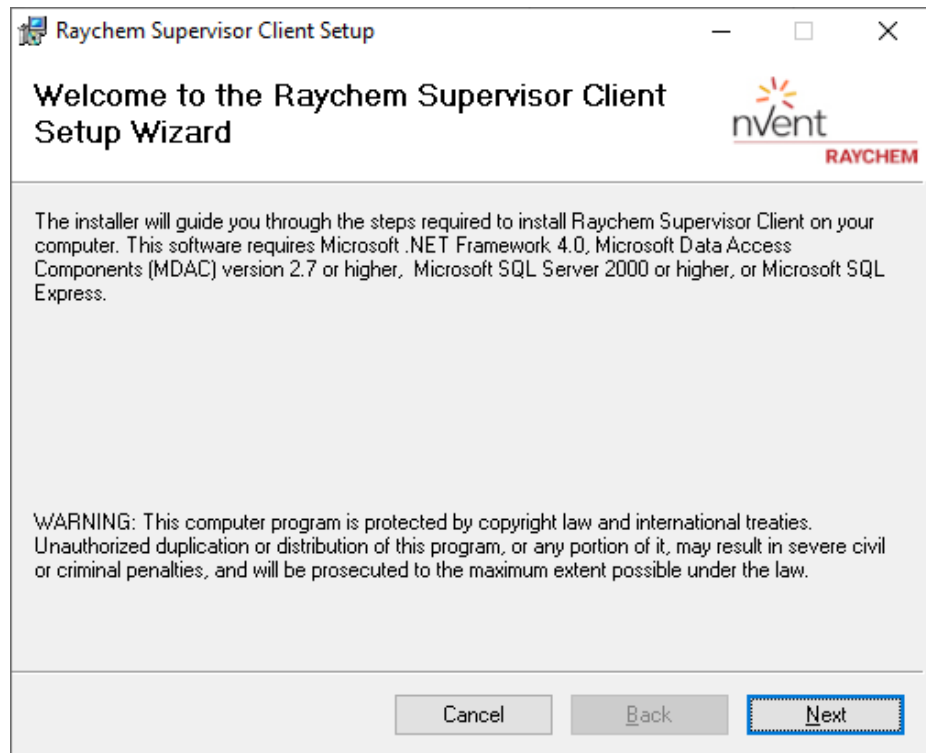


Figure 3.10.40 Welcome screen for RAYCHEM Supervisor Client installation

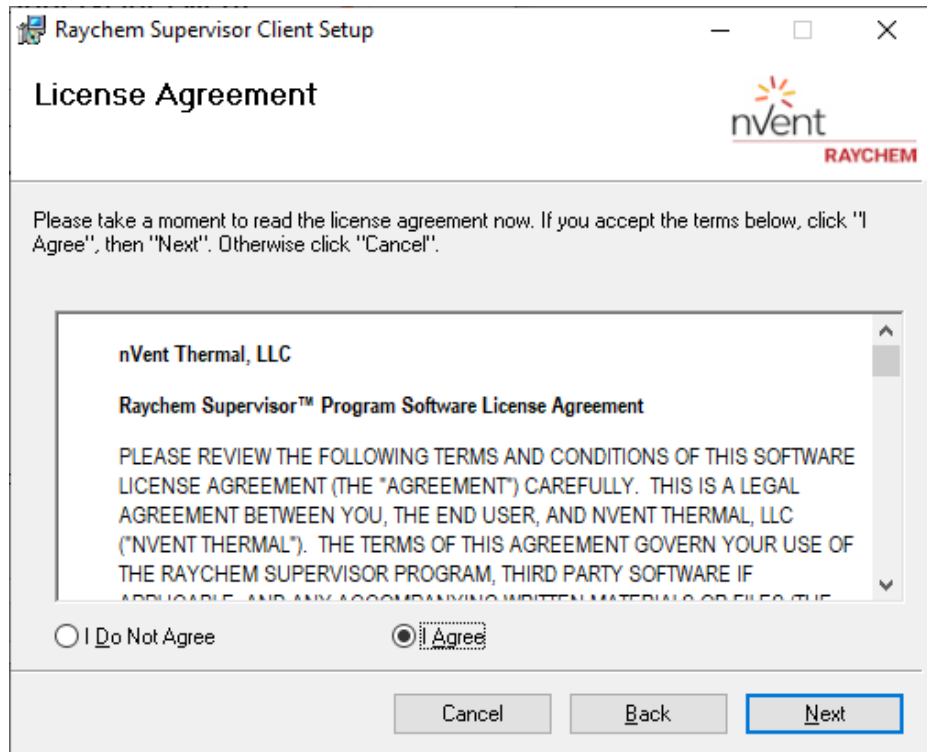


Figure 3.10.41 License Agreement for RAYCHEM Supervisor Client

Continue with the next screens until the Installation complete screen.

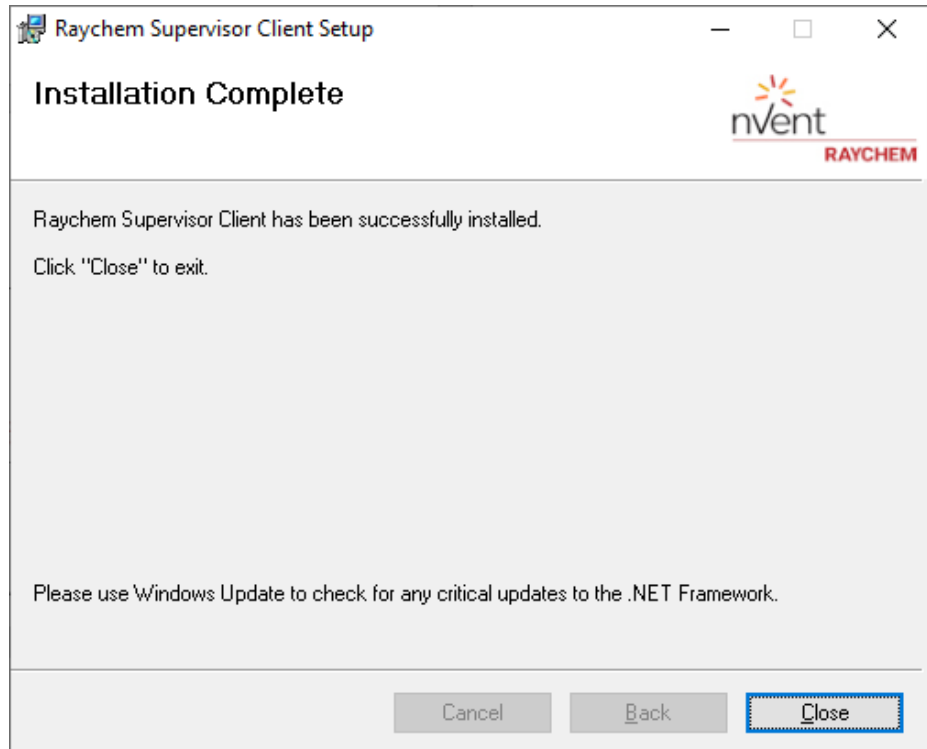


Figure 3.10.42 RAYCHEM Supervisor Client Installation Completed

You can now start the RAYCHEM Supervisor Client software by locating the RAYCHEM SupervisorClient icon on your desktop and double click on it.



Figure 3.10.43 RAYCHEM Supervisor Client Icon

3.11 UNINSTALLING RAYCHEM SUPERVISOR

Prior to removing any RAYCHEM Supervisor components from your computer system, back up your RAYCHEM Supervisor database. (Refer to Section 14.2.1 in the RAYCHEM Supervisor Operations Manual (H57576) for instructions on the proper backup procedure.)

3.11.1 UNINSTALLING RAYCHEM SUPERVISOR MASTER SERVER

You may remove RAYCHEM Supervisor Master Server from your computer system by following these steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select RAYCHEM Supervisor Master Server. Click on the Remove button.
4. Follow the instructions that appear on the screen.

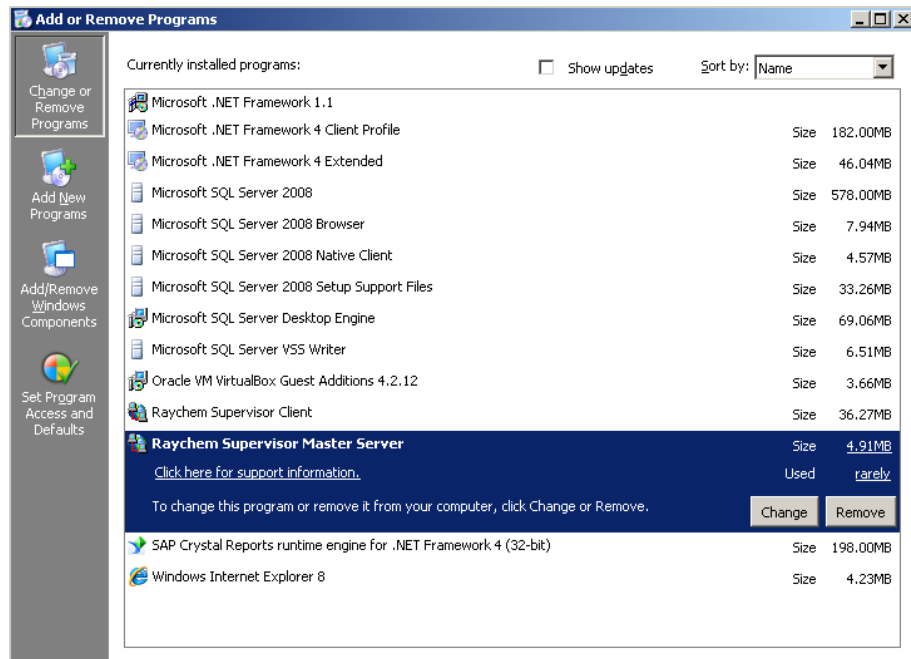


Figure 3.11.1 Remove RAYCHEM Supervisor master server

3.11.2 UNINSTALLING RAYCHEM SUPERVISOR SLAVE SERVER

You may remove RAYCHEM Supervisor Slave Server from your computer system by following the following steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select RAYCHEM Supervisor Slave Server. Click on the Remove button.
4. Follow the instructions that appear on the screen.

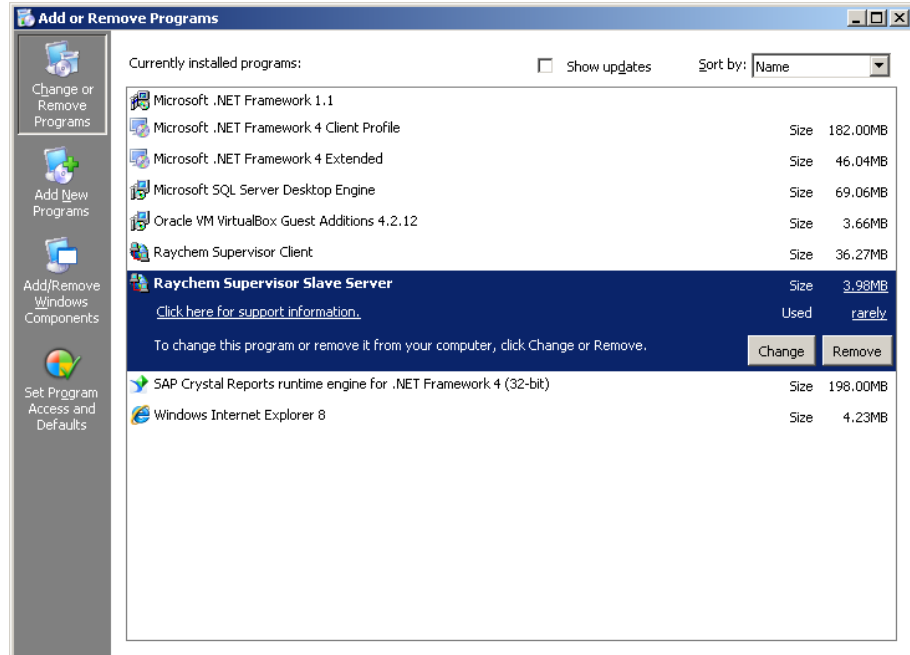


Figure 3.11.2 Remove RAYCHEM Supervisor slave server

3.11.3 UNINSTALLING RAYCHEM SUPERVISOR CLIENT

You may remove RAYCHEM Supervisor Client from your computer system by following the following steps:

1. Click the START button, then Select Control Panel.
2. Double-Click Add/Remove Programs.
3. In the list of installed programs, select RAYCHEM Supervisor Client. Click on the Remove button.
4. Follow the instructions that appear on the screen.

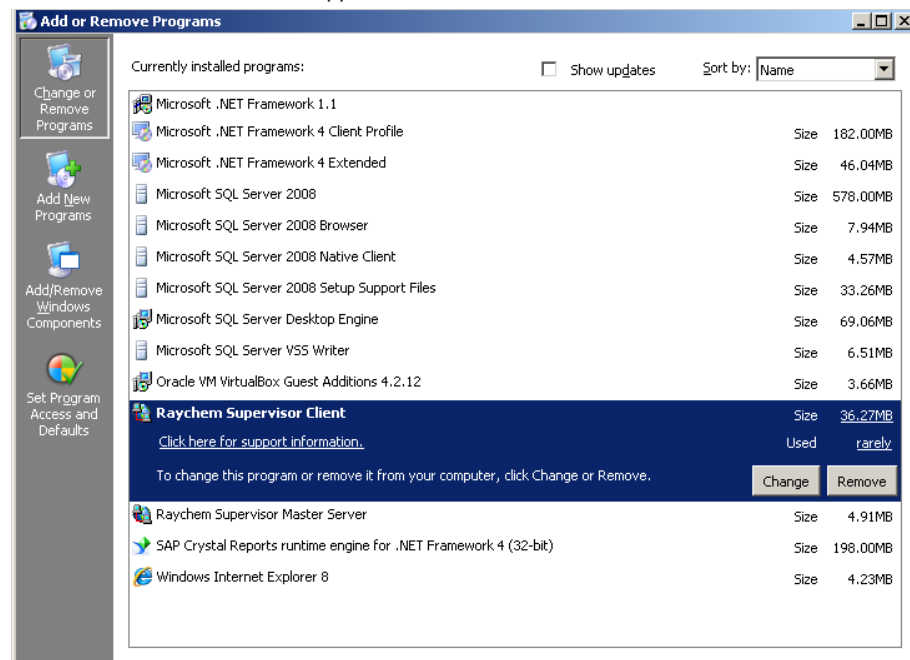


Figure 3.11.3 Remove RAYCHEM Supervisor client

SECTION 4 – SOFTWARE ACTIVATION AND REGISTRATION

Please refer to Section 15 in the RAYCHEM Supervisor Operations Manual.

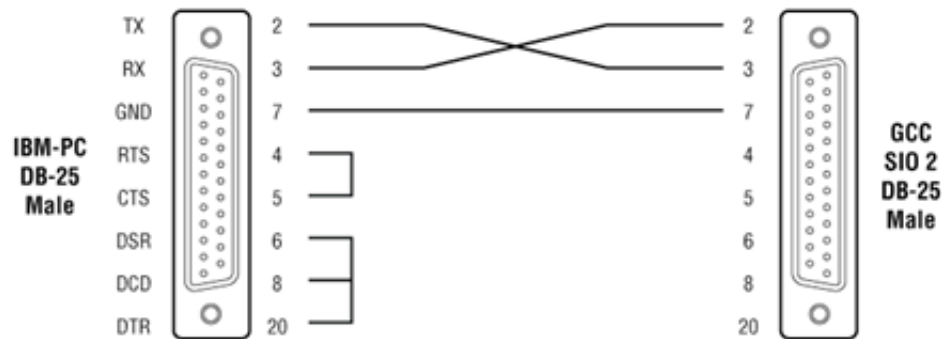
APPENDIX A – 780 SERIES/GCC-9000 CABLING

Refer to the 780 Series/GCC-9000 manual for an explanation regarding wiring of the HTC communications, alarm and relay ports. The communications between the master computer and the 780 Series/GCC-9000s may be accomplished using either RS-232 or RS-485, depending on the circumstances. If you are connecting multiple 780 Series/GCC-9000s to the RAYCHEM Supervisor software, you will need to use the RS-485 port and associated wiring to accomplish this.

A-1 RS-232 COMMUNICATIONS TO A 780 SERIES/GCC-9000

Communications to the 780 Series/GCC-9000 may be established via an RS-232 cable plugged into the 780 Series/GCC-9000's SIO#2 port and to one of the serial (COM) ports of your computer. The required cable wiring is shown below.

Personal computer 25-pin male to GCC RS-232C



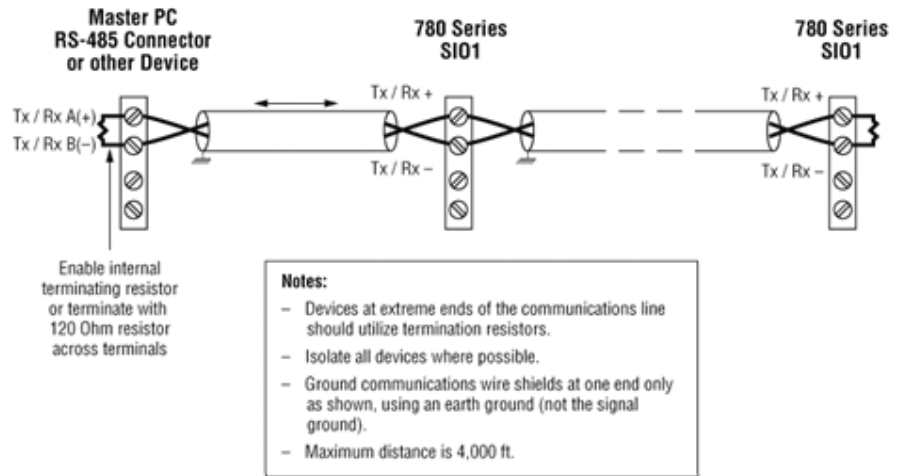
Personal computer 9-pin male to GCC RS-232C



A-2 RS-485 COMMUNICATION TO A 780 SERIES/GCC-9000

The wiring between the master computer and a 780 Series/GCC-9000 using the RS-485 port is accomplished using either a 2-wire or a 4-wire connection and an RS-485/RS-232 converter plugged into the computer's serial (COM) port.

**780 Series
SIO1 Wiring Diagram
(2-Wire RS-485)**



The following chart shows typical distances that may be achieved using the RS-485 communications port. These distances are based on using a 4-wire, 26-AWG shielded twisted pair. Note that speed and distances will depend on actual operating conditions.

| Speed | Distance |
|----------|---------------------|
| 1200 bps | 4.00 miles (6.4 km) |
| 2400 bps | 3.00 miles (4.8 km) |
| 4800 bps | 2.30 miles (3.7 km) |
| 9600 bps | 1.70 miles (2.7 km) |

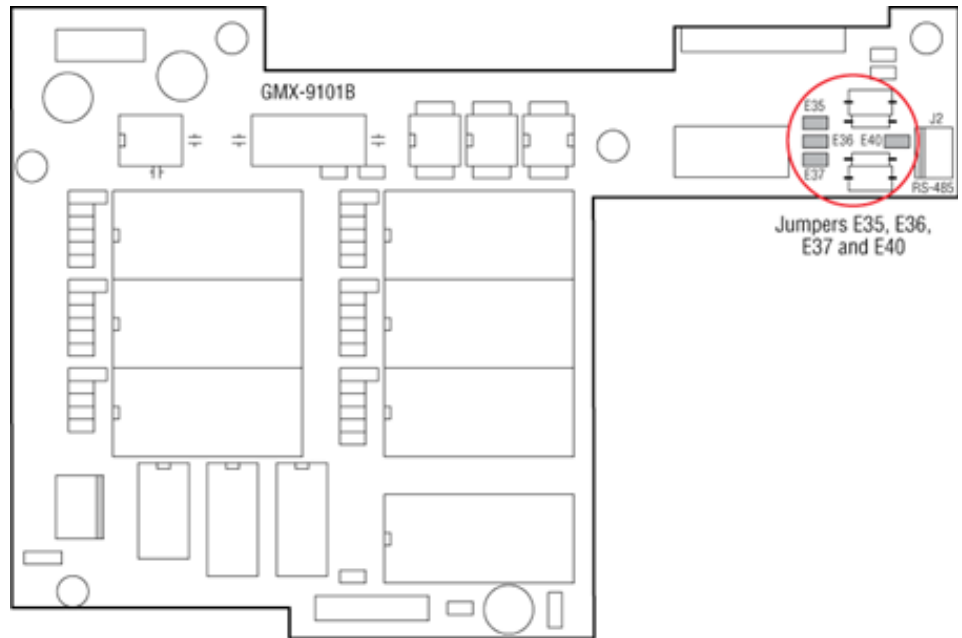
The RS-485 converter may be an internal card that plugs into one of your computers' empty slots, or an external device that connects to one of the existing serial ports via a cable. It is strongly recommended that you use an isolated-type interface to protect the computer from any voltage transients that may be introduced into the field wiring.

A-3 780 SERIES / GCC-9000 RS-485 JUMPER SETTINGS

Preparation

1. Power down the GCC and unplug its line cord.
2. Remove the four screws holding down the GCC's cover.
3. Identify the four jumpers on the drawing below.
4. Check to see if the existing jumper settings are acceptable.

Note: Static electricity can destroy electrical components! Ground one hand by touching the metal case prior to handling the jumpers.



For 2 Wire RS-485 Operation

1. Install jumpers E36 and E40 and use Tx+ and Tx- terminals to connect the RS-485 wiring.
2. Install jumper E35 for the termination resistor if this is the last (or furthest) GCC.

For 4 wire RS-485 Operation

1. Remove jumpers E36 and E40, if present, and use all four terminals Tx+, Tx-, Rx+, and Rx- to connect the RS-485 wiring.
2. Remove jumper E35 and install jumper E37 for the termination resistor if this is the last GCC on the RS-485 communications bus.

B-1 INSTALLATION ERRORS

Cannot install Master Server due to database error

- Ensure that the Microsoft SQL Server is properly installed and running on the computer where you are installing RAYCHEM Supervisor.
- Verify that the Master Server name has been typed in correctly.
- If RAYCHEM Supervisor Master Server does not install, ensure that there is no MSSQL file in the folder C:\Program Files\Microsoft SQL Server. This may be left over from a previous installation and will prevent the installation from completing.

Install error 1604 encountered installing Crystal Reports Runtime Engine

- Try running the installation setup again. This might happen if the installation setup files are stored in a network drive instead of the local drive.

Unexpected Installation errors encountered

If there are unexpected errors encountered during the installation, check that the Windows Operating system meets the minimum software requirement needed to install RAYCHEM Supervisor. Upgrade to the latest version if possible.

B-2 COMMUNICATION ERRORS

Communication Failures

When RAYCHEM Supervisor is connected to GCCs and HTC-direct controllers using a 2-wire RS-485 configuration make sure that the Tx Delay setting for each GCC and HTC-direct controller is set to at least 0.06 seconds. This will ensure that the GCC or HTC-direct devices do not start to transmit a reply until RAYCHEM Supervisor has turned off its driver.

B-3 OTHER ERRORS

Some text does not display properly in the “Help About” screen

- If you are using McAfee Virus Scan software, you may have to disable the “Buffer Overflow Protection” option in the McAfee setup to eliminate this problem.

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